

File 350:Derwent WPIX 1963-2004/UD,UM &UP=200458
File 347:JAPIO Nov 1976-2004/May(Updated 040903)
File 348:EUROPEAN PATENTS 1978-2004/Sep W01
File 349:PCT FULLTEXT 1979-2002/UB=20040909,UT=20040902

Set	Items	Description
S1	48	AU='MURPHY G' OR AU='MURPHY GREG' OR AU='MURPHY GREGORY'
S2	84	AU='MURPHY G B' OR AU='MURPHY G E' OR AU='MURPHY G J' OR A- U='MURPHY GREGORY B' OR AU='MURPHY GREGORY E' OR AU='MURPHY G- REGORY J'
S3	61	AU='REDDY S'
S4	6	AU='REDDY SURESH BADDAM'
S5	19	AU='REDDY S B'
S6	82	AU='DAVIS A' OR AU='DAVIS ALBERT'
S7	30	AU='DAVIS ALBERT M' OR AU='DAVIS ALBERT MICHAEL' OR AU='DA- VIS A M'
S8	5	S1:S2 AND S3:S5 AND S6:S7
S9	59989	PATCH??
S10	6	(S1:S7 AND S9) NOT S8

8/7/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX
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015704574 **Image available**
WPI Acc No: 2003-766767/200372

Ventricle reconstructive surgery sterile kit, has sizing template with lip coupled to periphery for defining a patch size and shaper with size and shape equal to ventricle is placed temporarily into ventricle during surgery

Patent Assignee: DAVIS A (DAVI-I); MURPHY G (MURP-I); REDDY S (REDD-I)
Inventor: **DAVIS A ; MURPHY G ; REDDY S**
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030192561	A1	20031016	US 2001272073	P	20010228	200372 B
			US 2001864794	A	20010524	
			US 2003454978	A	20030605	

Priority Applications (No Type Date): US 2001272073 P 20010228; US
2001864794 A 20010524; US 2003454978 A 20030605

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030192561	A1		20	A61B-019/00	Provisional application US 2001272073 Cont of application US 2001864794

Abstract (Basic): US 20030192561 A1

NOVELTY - The kit has a series of sizing templates (402) differing in size in which a surgeon selectively positions a sizing template into an opening in a left ventricle. The template is used as a guide in cutting a biocompatible material. The template has a lip coupled to a periphery for defining a patch size. A shaper with a size and shape equal to the ventricle is placed temporarily into the ventricle during the surgery.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of reconstructing an enlarged left ventricle of a human heart.

USE - Used for restoring the architecture and normal function of a mammalian heart.

ADVANTAGE - The shaper with a size and shape equal to the ventricle is placed temporarily into the ventricle, thereby allowing the surgeons

to reconstruct the ventricle to the appropriate shape, size and contour.

DESCRIPTION OF DRAWING(S) - The drawing shows a top view of a kit for surgically reshaping a ventricle.

Balloon (201)
Syringe (210)
Sizers (402)
Handle (404)
Suture hook (520)
pp; 20 DwgNo 6/7

Derwent Class: P31

International Patent Class (Main): A61B-019/00

8/7/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015279895

WPI Acc No: 2003-340826/200332

Ventricular patch for placement into left ventricle of heart, has sheet of biocompatible material coupled with several markings configured in distinct patterns for post operatively evaluating movement of patch

Patent Assignee: CHASE MEDICAL LP (CHAS-N); DAVIS A (DAVI-I); MURPHY G (MURP-I); REDDY S (REDD-I)

Inventor: DAVIS A ; MURPHY G ; SURESH M; REDDY S

Number of Countries: 028 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020133227	A1	20020919	US 2001272073	P	20010228	200332 B
			US 2001864793	A	20010524	
EP 1401356	A1	20040331	EP 2002729297	A	20020522	200424
			WO 2002US16304	A	20020522	

AU 2002259297 A1 20021203 AU 2002259297 A 20020522 200452

Priority Applications (No Type Date): US 2001272073 P 20010228; US

2001864793 A 20010524; US 2001864503 A 20010524; US 2001864510 A 20010524
; US 2001864794 A 20010524

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020133227	A1		20	A61M-001/10	Provisional application US 2001272073
EP 1401356	A1 E			A61F-002/06	Based on patent WO 200294136

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI TR

AU 2002259297 A1 A61F-002/06 Based on patent WO 200294136

Abstract (Basic): US 20020133227 A1

NOVELTY - A ventricular patch adapted for placement into the left ventricle of a heart, comprises a sheet of biocompatible material, and several markings coupled to the sheet. The markings are configured in distinct patterns for post operatively evaluating movement of the patch.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method for reconstructing an enlarged left ventricle of a human heart which involves opening the enlarged left ventricle, reforming, determining the size and shape of an appropriate patch and closing the opening using the patch, such that the enlarged left ventricle is reconstructed into a shape and volume of an appropriate left ventricle.

USE - For use in the treatment of cardiomyopathy.

ADVANTAGE - The markings of the patch enables to observe the

movement and position of the patch to be post-operatively observed and analyzed under imaging system. The markings also allows identification of heart's contractility in future postoperative evaluations.

pp; 20 DwgNo 0/7

Derwent Class: A96; D22; P31; P32; P34; S02; S05

International Patent Class (Main): A61F-002/06; A61M-001/10

8/7/3 (Item 3 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

015086935 **Image available**

WPI Acc No: 2003-147453/200314

Prefabricated, sterile kit has shaper which is adapted to be temporarily placed into left ventricle during reconstructive surgery

Patent Assignee: CHASE MEDICAL LP (CHAS-N); DAVIS A (DAVI-I); MURPHY G (MURP-I); REDDY S (REDD-I); CHASE MEDICAL INC (CHAS-N)

Inventor: DAVIS A ; MURPHY G ; SURESH M; REDDY S

Number of Countries: 101 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020133182	A1	20020919	US 2001272073	P	20010228	200314 B
			US 2001864794	A	20010524	
WO 200294136	A1	20021128	WO 2002US16304	A	20020522	200314
US 6681773	B2	20040127	US 2001272073	P	20010228	200408
			US 2001864794	A	20010524	
EP 1401356	A1	20040331	EP 2002729297	A	20020522	200424
			WO 2002US16304	A	20020522	
AU 2002259297	A1	20021203	AU 2002259297	A	20020522	200452
Priority Applications (No Type Date): US 2001272073 P 20010228; US 2001864794 A 20010524; US 2001864503 A 20010524; US 2001864510 A 20010524; US 2001864793 A 20010524						

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020133182	A1		21	A61B-017/08	Provisional application US 2001272073
WO 200294136	A1 E			A61F-002/06	
Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW					
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW					
US 6681773	B2			A61B-019/00	Provisional application US 2001272073
EP 1401356	A1 E			A61F-002/06	Based on patent WO 200294136
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
AU 2002259297	A1			A61F-002/06	Based on patent WO 200294136
Abstract (Basic): US 20020133182 A1					

NOVELTY - The kit includes a shaper which is adapted to be temporarily placed into the left ventricle during the reconstructive surgery. The shaper has a size and shape equal to the size and shape of the left ventricle. A sizing template is used as a guide in cutting the bio-compatible material. The template has a lop coupled to the periphery of another template for defining the size of a patch.

DETAILED DESCRIPTION - The biocompatible material is provided with markings configured in distinct patterns for post operatively

evaluating the movement of the patch. An INDEPENDENT CLAIM is also included for a method for reconstructing an enlarged left ventricle of a human heart.

USE - For use during left ventricle reconstructive surgery to provide tools and apparatus to interoperatively construct a heart patch. Used for restoring the architecture and normal function of a mammalian heart.

ADVANTAGE - Allows a surgeon to reconstruct the left ventricle to the appropriate shape, size and contour.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart of the process using the prefabricated, sterile kit.

pp; 21 DwgNo 1/7

Derwent Class: A96; D22; P31; P32; P34; S02; S05

International Patent Class (Main): A61B-017/08; A61B-019/00; A61F-002/06

International Patent Class (Additional): A61F-002/02

8/7/4 (Item 4 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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015086934

WPI Acc No: 2003-147452/200314

Ventricular restoration device used in surgical procedures to reconstruct enlarged left ventricle of human heart, comprises shaper adapted to be temporarily placed into enlarged left ventricle during surgical procedure

Patent Assignee: CHASE MEDICAL LP (CHAS-N); DAVIS A (DAVI-I); MURPHY G

(MURP-I); REDDY S (REDD-I)

Inventor: DAVIS A ; MURPHY G ; SURESH M; REDDY S

Number of Countries: 028 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020133143	A1	20020919	US 2001272073	P	20010228	200314 B
			US 2001864510	A	20010524	
EP 1401356	A1	20040331	EP 2002729297	A	20020522	200424
			WO 2002US16304	A	20020522	
AU 2002259297	A1	20021203	AU 2002259297	A	20020522	200452

Priority Applications (No Type Date): US 2001272073 P 20010228; US 2001864510 A 20010524; US 2001864503 A 20010524; US 2001864793 A 20010524; US 2001864794 A 20010524

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020133143	A1		20	A61B-017/00	Provisional application US 2001272073
EP 1401356	A1 E			A61F-002/06	Based on patent WO 200294136

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

AU 2002259297 A1 A61F-002/06 Based on patent WO 200294136

Abstract (Basic): US 20020133143 A1

NOVELTY - A ventricular restoration device comprises a shaper having a size and shape equal to the size and shape of a left ventricle. The shaper is adapted to be temporarily placed into the enlarged left ventricle during a surgical procedure.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method for reconstructing an enlarged left ventricle of a human heart comprising:

- (i) opening the enlarged left ventricle;
- (ii) placing a shaper into the enlarged left ventricle;
- (iii) reforming the enlarged left ventricle over the shaper;

(iv) removing the shaper from the enlarged left ventricle; and
 (v) closing the opening such that the enlarged left ventricle is
 reconstructed into a shape and volume of an appropriate left ventricle.

USE - Used in surgical procedures to reconstruct an enlarged left
 ventricle of a human heart.

ADVANTAGE - The invention allows the surgeon to reconstruct the
 left ventricle to the appropriate shape, size and contour.

pp; 20 DwgNo 0/7

Derwent Class: A96; D22; P31; P32; P34; S02; S05

International Patent Class (Main): A61B-017/00; A61F-002/06

8/7/5 (Item 5 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015086931 **Image available**

WPI Acc No: 2003-147449/200314

**Surgical device used for ventricular restoration of human heart, has
 sizing template adapted to be placed in opening in left ventricle to
 determine size of opening**

Patent Assignee: CHASE MEDICAL LP (CHAS-N); DAVIS A (DAVI-I); MURPHY G
 (MURP-I); REDDY S (REDD-I)

Inventor: DAVIS A ; MURPHY G ; SURESH M; REDDY S

Number of Countries: 028 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020133054	A1	20020919	US 2001272073	P	20010228	200314 B
			US 2001864503	A	20010524	
US 6702763	B2	20040309	US 2001272073	P	20010228	200418
			US 2001864503	A	20010524	
EP 1401356	A1	20040331	EP 2002729297	A	20020522	200424
			WO 2002US16304	A	20020522	
AU 2002259297	A1	20021203	AU 2002259297	A	20020522	200452

Priority Applications (No Type Date): US 2001272073 P 20010228; US

2001864503 A 20010524; US 2001864510 A 20010524; US 2001864793 A 20010524
 ; US 2001864794 A 20010524

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20020133054	A1	21	A61F-002/00	Provisional application US 2001272073
US 6702763	B2		A61B-005/103	Provisional application US 2001272073
EP 1401356	A1 E		A61F-002/06	Based on patent WO 200294136

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
 LI LT LU LV MC MK NL PT RO SE SI TR

AU 2002259297 A1 A61F-002/06 Based on patent WO 200294136

Abstract (Basic): US 20020133054 A1

NOVELTY - A sizing template is coupled to a handle and adapted to
 be placed in the opening in a left ventricle to determine opening size
 and judge when periphery of sizing template corresponds to the size and
 shape of the opening. A lip is coupled to the sizing template to define
 the size of a patch.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a
 method for reconstructing an enlarged left ventricle of human heart.

USE - Used for ventricular restoration surgery for human heart.

ADVANTAGE - Attains reliable apparatus which allows surgeon to
 reconstruct left ventricle to appropriate shape, size and contour.

DESCRIPTION OF DRAWING(S) - The figure is the process flow of the
 surgical reconstruction process.

pp; 21 DwgNo 1/7
Derwent Class: A96; D22; P31; P32; P34; S02; S05
International Patent Class (Main): A61B-005/103; A61F-002/00; A61F-002/06

10/26, TI/4 (Item 2 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.
01146554
A METHOD AND SYSTEM FOR IMAGE PROCESSING AND CONTOUR ASSESSMENT

10/7/1 (Item 1 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv..
015650291
WPI Acc No: 2003-712474/200367

Ventricular repair system comprises patch of predetermined shape that is non-planar or similar to part of appropriate ventricle
Patent Assignee: CHASE MEDICAL LP (CHAS-N); DAVIS A M (DAVI-I); MURPHY G (MURP-I); SURESH M (SURE-I)
Inventor: **DAVIS A M ; MURPHY G ; SURESH M**
Number of Countries: 102 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200361455	A2	20030731	WO 2003US1917	A	20030123	200367 B
AU 2003207651	A1	20030902	AU 2003207651	A	20030123	200422

Priority Applications (No Type Date): US 2002351297 P 20020123

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
WO 200361455	A2	E	18 A61B-000/00	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW

AU 2003207651 A1 A61B-000/00 Based on patent WO 200361455
Abstract (Basic): WO 200361455 A2

NOVELTY - Ventricular repair system comprises a **patch** of a predetermined shape that is non-planar or similar to a part of an appropriate ventricle.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for reconstructing a ventricle of a human heart which comprises:

(1) opening the ventricle, positioning a non-planar **patch** in the ventricle, sizing the **patch**, coupling at least a part of the **patch** to at least a part of the ventricle and excluding at least a part of the non viable tissue, and

(2) opening the ventricle, positioning a **patch** in the ventricle, reforming a contour of at least one part of the ventricle around the **patch** so that an apex is formed in the ventricle, coupling sizing the **patch**, coupling at least a part of the **patch** to at least a part of the ventricle and excluding at least a part of the non viable tissue.

USE - Used for reconstructing a ventricle of a human heart (claimed), particularly the left ventricle.

ADVANTAGE - The system allows a surgeon to perform surgical

ventricular restoration without having to compromise on the shape of the ventricle to exclude all akinetic tissue or to compromise on excluding all akinetic tissue to create the proper shape.

pp; 18 DwgNo 0/5

Derwent Class: A96; B04; D16; D22; P31; S05

International Patent Class (Main): A61B-000/00

10/3,AB/3 (Item 1 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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01148628

A SYSTEM AND METHOD FOR FACILITATING CARDIAC INTERVENTION

SYSTEME ET PROCEDE PERMETTANT DE FACILITER UNE INTERVENTION CARDIAQUE

Patent Applicant/Assignee:

CHASE MEDICAL L P, 1876 Firman Drive, Richardson, Texas 75081, US, US

(Residence), US (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

MURPHY Gregory, 4813 Red Fox Drive, Annandale, Virginia 22003, US, US

(Residence), US (Nationality), (Designated only for: US)

SURESH Mitta, 3201 Tam O Shanter Lane, Richardson, Texas 75080, US, US

(Residence), IN (Nationality), (Designated only for: US)

DAVIS Albert Michael, 304 Arborcrest Drive, Richardson, Texas 75080, US

, US (Residence), US (Nationality), (Designated only for: US)

Legal Representative:

MEYERTONS Eric B (agent), Meyertons, Hood, Kivlin, Kowert & Goetzel,

P.C., P.O. Box 398, Austin, Texas 78701, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200470553 A2 20040819 (WO 0470553)

Application: WO 2004US2669 20040130 (PCT/WO US04002669)

Priority Application: US 2003443604 20030130

Designated States:

(All protection types applied unless otherwise stated - for applications 2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO
RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE
SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) BW GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 26883

English Abstract

One embodiment discloses a computerized method of facilitating cardiac intervention, comprising inputting patient data, creating a computerized interactive model of a heart based on the patient data, wherein the model comprises features, simulating at least one proposed cardiac intervention treatment by adding or deleting features to the model, and determining the effects of the proposed cardiac simulation upon the entire model. Simulations may be repeated to allow the user to determine an optimal cardiac intervention. Additionally, a template may be created from the model to use as a guide during the cardiac intervention.

10/3,AB/6 (Item 4 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

(c) 2004 WIPO/Univentio. All rts. reserv.

00960462

APPARATUS, KIT, AND METHOD FOR USE DURING VENTRICULAR RESTORATION

APPAREIL, NECESSAIRE ET PROCEDE CONVENANT EN RESTAURATION VENTRICULAIRE

Patent Applicant/Assignee:

CHASE MEDICAL L P, 1710 Firman Drive, Suite 100, Richardson, TX 75081, US,
US (Residence), US (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

MURPHY Gregory, 2502 Overcreek Drive, Richardson, TX 75080, US, US

(Residence), US (Nationality), (Designated only for: US)

SURESH Mitta, 3201 Tam O'Shanter, Richardson, TX 75080, US, US

(Residence), IN (Nationality), (Designated only for: US)

DAVIS Albert, 304 Arborcrest, Richardson, TX 75080, US, US (Residence),

US (Nationality), (Designated only for: US)

Legal Representative:

MCCOMBS David L (et al) (agent), Haynes and Boone, LLP, 901 Main Street,
Suite 3100, Dallas, TX 75202, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200294136 A1 20021128 (WO 0294136)

Application: WO 2002US16304 20020522 (PCT/WO US0216304)

Priority Application: US 2001864793 20010524; US 2001864794 20010524; US
2001864503 20010524; US 2001864510 20010524

Designated States:

(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 12565

English Abstract

An apparatus and method for reconstructing an enlarged left ventricle of a human heart wherein the apparatus includes a shaping device (200), having a size and shape substantially equal to the size and shape of an appropriate left ventricle, wherein the shaping device (200) is adapted to be temporarily placed into the enlarged left ventricle during a surgical procedure; a ventricular **patch** (300) adapted for placement into the left ventricle of a heart made from a sheet of biocompatible material, and having a plurality of markings coupled to the sheet, wherein the markings are configured in distinct patterns for post operatively evaluating movement of the **patch** (300); and a device including handle (404) and a sizing template (430) adapted to be coupled to the handle (404) and sizers (402a-402d) adapted to coupled to the sizing template (430).

File 155:MEDLINE(R) 1951-2004/Sep W2

File 5:Biosis Previews(R) 1969-2004/Sep W2

File 73:EMBASE 1974-2004/Sep W1

File 34:SciSearch(R) Cited Ref Sci 1990-2004/Sep W1

File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec

Set	Items	Description
S1	2014	AU='MURPHY G' OR AU='MURPHY G.'
S2	3	AU='MURPHY GREGORY'
S3	1242	AU='REDDY S'
S4	318	AU='REDDY S.'
S5	8	AU='REDDY SURESH' OR AU='REDDY SURESH K'
S6	78	AU='REDDY S K'
S7	63	AU='REDDY SK'
S8	37	AU='REDDY S.K.'
S9	2318	AU='DAVIS A' OR AU='DAVIS A M' OR AU='DAVIS A.'
S10	156	AU='DAVIS A.M.'
S11	459	AU='DAVIS ALBERT' OR AU='DAVIS ALBERT M' OR AU='DAVIS AM'
S12	252809	PATCH??
S13	21	S1:S11 AND S12
S14	13	RD (unique items)
S15	13	Sort S14/ALL/PY,A

15/6/4 (Item 4 from file: 5)

0011926579 BIOSIS NO.: 199900186239

Characteristics of Na currents in cell attached patches in skeletal muscle from 129SV mice

1999

15/6/7 (Item 7 from file: 34)

09721113 Genuine Article#: 441GE Number of References: 27

Title: Long-term follow-up on use of pericardial graft in the surgical management of Peyronie's disease (ABSTRACT AVAILABLE)

Publication date: 20010600

15/6/9 (Item 9 from file: 73)

11684446 EMBASE No: 2002257416

T wave alternans threshold late after repair of tetralogy of Fallot

2002

15/6/12 (Item 12 from file: 5)

0014822523 BIOSIS NO.: 200400213280

Sizing apparatus and method for use during ventricular restoration

2004

15/6/13 (Item 13 from file: 5)

0014758687 BIOSIS NO.: 200400129444

Kit and method for use during ventricular restoration

2004

File 155:MEDLINE(R) 1951-2004/Sep W2

Set	Items	Description
S1	9861	'ELECTRODES, IMPLANTED' OR DC='E7.296.319.'
S2	13576	'DEFIBRILLATORS, IMPLANTABLE' OR DC='E7.296.319.175.' OR DC='E7.695.175.' OR 'CARDIOVERTER-DEFIBRILLATORS, IMPLANTABLE' OR 'IMPLANTABLE CARDIOVERTER-DEFIBRILLATORS' OR 'IMPLANTABLE - DEFIBRILLATORS' OR 'ELECTRODES, IMPLANTED'
S3	5769	'BIOPROSTHESIS' OR DC='E7.695.100.' OR 'GLUTARALDEHYDE-STABILIZED GRAFTS' OR 'HETEROGRAFT BIOPROSTHESIS' OR 'PORCINE XENOGRAFT BIOPROSTHESIS' OR 'XENOGRAFT BIOPROSTHESIS'
S4	20711	'BLOOD VESSEL PROSTHESIS' OR 'DEFIBRILLATORS, IMPLANTABLE'
S5	4751	'BLOOD VESSEL PROSTHESIS IMPLANTATION' OR DC='E4.100.814.2-00.' OR DC='E4.650.200.'
S6	56888	PATCH OR PATCHES
S7	1327	S1:S5 AND S6
S8	1093368	PATTERN? ? OR DESIGN? ? OR MARKER? ? OR MARKINGS? ? OR INDICIA
S9	544	PARALLEL() LINES OR (HORIZONTAL AND VERTICAL) (5N) LINES OR RADIAL() LINES
S10	8306	STARBURST OR GRID OR GRIDLIKE OR STRIPES OR STRIPED OR CONCENTRIC() CIRCLE? ?
S11	0	S7 AND (S9 OR S10() S8)
S12	10139	S7 OR S9 OR S10
S13	2	S7 AND S9:S10
S14	171	S7 AND S8
S15	8	S6(3N) S8 AND S7
S16	8	S15 NOT S13
S17	18267	(VENTRICLE OR VENTRICULAR OR ATRIOVENTRICULAR OR HEART OR - BLOOD() VESSEL) AND (IMPLANT????(1N) (ELECTRODE? ? OR DEFIBRILLATOR? ? OR CARDIOVERTER? ?) OR PATCH OR PATCHES OR BIOPROSTHESIS(S))
S18	0	S9 AND S17
S19	15	S10 AND S17
S20	13	S19 NOT (S13 OR S15)
S21	237406	VENTRICLE OR VENTRICULAR OR ATRIOVENTRICULAR OR BLOOD() VESSEL
S22	79624	IMPLANT?(1N) (ELECTRODE? ? OR DEFIBRILLATOR? ? OR CARDIOVERTER? ?) OR BIOPROSTHESIS OR PATCH OR PATCHES
S23	3100	S21(5N) S22
S24	452	S23 AND S8:S10
S25	910	S22(3N) S8:S10
S26	68	S24 AND S25
S27	35	S22(3N) S9:S10
S28	1	S21 AND S27
S29	0	S28 NOT (S13 OR S15 OR S19)
S30	34	S27 NOT (S13 OR S15 OR S19)
S31	3	S30/2002:2004
S32	31	S30 NOT S31
S33	4	S22/DE AND S32

13/7/1

DIALOG(R) File 155:MEDLINE(R)

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10851574 PMID: 10983706

Surface geometric analysis of anatomic structures using biquintic finite element interpolation.

Smith D B; Sacks M S; Vorp D A; Thornton M

Department of Bioengineering, University of Pittsburgh, PA 15261, USA.

Annals of biomedical engineering (UNITED STATES) Jun 2000, 28 (6)
p598-611, ISSN 0090-6964 Journal Code: 0361512

Document type: Journal Article; Validation Studies

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

The surface geometry of anatomic structures can have a direct impact upon their mechanical behavior in health and disease. Thus, mechanical analysis requires the accurate quantification of three-dimensional in vivo surface geometry. We present a fully generalized surface fitting method for surface geometric analysis that uses finite element based hermite biquintic polynomial interpolation functions. The method generates a contiguous surface of C2 continuity, allowing computation of the finite strain and curvature tensors over the entire surface with respect to a single in-surface coordinate system. The Sobolev norm, which restricts element length and curvature, was utilized to stabilize the interpolating polynomial at boundaries and in regions of sparse data. A major advantage of the current method is its ability to fully quantify surface deformation from an unstructured **grid** of data points using a single interpolation scheme. The method was validated by computing both the principal curvature distributions for phantoms of known curvatures and the principal stretch and principal change of curvature distributions for a synthetic spherical **patch** warping into an ellipsoidal shape. To demonstrate the applicability to biomedical problems, the method was applied to quantify surface curvatures of an abdominal aortic aneurysm and the principal strains and change of curvatures of a deforming bioprosthetic heart valve leaflet. The method proved accurate for the computation of surface curvatures, as well as for strains and curvature change for a surface undergoing large deformations.

Record Date Created: 20001220

Record Date Completed: 20010118

13/7/2

DIALOG(R) File 155:MEDLINE(R)

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10234628 PMID: 7937233

Scatter diagram analysis: a new technique for discriminating ventricular tachyarrhythmias.

Throne R D; Windle J R; Easley A R; Olshansky B; Wilber D

Department of Electrical Engineering, University of Nebraska, Lincoln.

Pacing and clinical electrophysiology - PACE (UNITED STATES) Jul 1994,
17 (7) p1267-75, ISSN 0147-8389 Journal Code: 7803944

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

With the increasing flexibility allowed by implantable cardioverter defibrillators that use tiered therapy, it is important to match the therapy with the arrhythmia. In this article we present scatter diagram analysis, a new computationally efficient two-channel algorithm for distinguishing monomorphic ventricular tachycardia (VT) from polymorphic ventricular tachycardia and ventricular fibrillation (VF). Scatter diagram analysis plots the amplitude from one channel versus the amplitude from another channel on a graph with a 15 x 15 **grid**. The fraction (percentage) of the 225 **grid** blocks occupied by at least one sample point is then

determined. We found that monomorphic VT traces nearly the same path in space and occupies a smaller percentage of the graph than a nonregular rhythm such as polymorphic VT or VF. Scatter diagram analysis was tested on 27 patients undergoing intraoperative implantable cardioverter defibrillator testing. Passages of 4.096 seconds were obtained from rate (bipolar epicardial) and morphology (**patch**) leads, and digitized at 125 Hz. Scatter diagram analysis distinguished 13 episodes of monomorphic VT (28.6% +/- 4.0%) from 27 episodes of polymorphic VT or VF (48.0% +/- 8.2%) with $P < 0.0005$. There was overlap in only one monomorphic VT episode and one polymorphic VT or VF episode.

Record Date Created: 19941117

Record Date Completed: 19941117

16/7/2

DIALOG(R)File 155:MEDLINE(R)

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13669235 PMID: 9358808

Defibrillation threshold and electrode configurations: an experimental study testing three configurations in twelve pigs.

Obadia J F; Janier M; Chevalier P; Bazillais O; Chassignolle J F; Kirkorian G; Touboul P

Cardiologic Hospital Louis Pradel, Hospices Civils de Lyon, France.

Journal of cardiovascular surgery (ITALY) Oct 1997, 38 (5) p495-9,
ISSN 0021-9509 Journal Code: 0066127

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

OBJECTIVE: The choice between epicardial or subcutaneous **patches** remains unclear and depends essentially on the team's habits. This study tested how much an additional **patch** can decrease defibrillation threshold (DFT), and compared a Subcutaneous Array and an epicardial **patch**. Today most implantable automatic defibrillators have a transvenous endocardial configuration alone but when the DFT remains high an additional **patch** is necessary. **EXPERIMENTAL DESIGN** : Three different configurations were tested with biphasic shocks in 12 pigs: Endovenous lead (Endo), Endovenous lead + subcutaneous **patch** (Endo + SQ) and Endovenous lead + epicardial **patch** (Endo + Epi). For each animal DFTs were determined in a balanced random order for the 3 configurations. Ventricular fibrillation was induced by pacing (30 Hz, 8 V, for 5 seconds). DFT was accurately measured with the up/down procedure until 3 reversal of defibrillation success or failure occurred. DFTs (mean +/- SD) were extracted and compared using paired t test and analysis of variance. **RESULTS:** DFTs were 14.6 +/- 11.0 J for Endo and significantly decreased ($p < 0.01$) when an additional SQ (9.4 +/- 7.2 J) or epicardial **patch** (8.9 +/- 6.5 J) was added to endovenous lead, without significant difference between Endo + SC and Endo + Epi configurations. **CONCLUSIONS:** Regarding this important decrease of DFT (respectively -35% for Endo + SC and -39% for Endo + Epi), additional **patches** should be more often recommended in patients with low safety margin of DFT. In those cases subcutaneous **patches** should be preferred instead of epicardial **patches**. Moreover, an additional reason to recommend this attitude could be the possible generator batteries saving.

Record Date Created: 19971126

Record Date Completed: 19971126

16/7/3

DIALOG(R) File 155:MEDLINE(R)

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13014636 PMID: 8680645

Thoracoscopic versus laparoscopic placement of defibrillator patches .

Krasna M J; Buser G A; Flowers J L; Bailey R; Gold M R

Department of Surgery, University of Maryland, Baltimore, USA.

Surgical laparoscopy & endoscopy (UNITED STATES) Apr 1996, 6 (2)
p91-7, ISSN 1051-7200 Journal Code: 9107230

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Nonthoracotomy lead systems have been developed to reduce the morbidity associated with cardioverter/defibrillator implantation. Total endocardial lead systems are effective in only about 50% of patients with standard monophasic waveforms; so **patch** placement is frequently required. We developed a new **patch design** and surgical techniques for thoracoscopic **patch** placement over the left ventricle and laparoscopic placement under the diaphragm. To compare the efficacy of these approaches, **patches** were placed in both locations in pigs acutely with a right ventricular coil serving as the anode for defibrillation. Defibrillation testing was performed, alternating between **patches**. The energies associated with 50% (DF50) and 90% (DF90) probability of successful defibrillation with biphasic shocks with determined. Defibrillator thresholds were significantly lower with intrathoracic than with subdiaphragmatic **patches**. Animal autopsy following more than 30 shocks from each **patch** revealed no gross damage to the lung or diaphragm in any animal.

Record Date Created: 19960819

Record Date Completed: 19960819

16/7/4

DIALOG(R) File 155:MEDLINE(R)

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12891799 PMID: 8552520

Incidence of ICD lead related complications during long-term follow-up: comparison of epicardial and endocardial electrode systems.

Korte T; Jung W; Spehl S; Wolpert C; Moosdorf R; Manz M; Luderitz B

Department of Cardiology, University of Bonn, Germany.

Pacing and clinical electrophysiology - PACE (UNITED STATES) Nov 1995,
18 (11) p2053-61, ISSN 0147-8389 Journal Code: 7803944

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

The aim of this study was to evaluate the long-term stability of epicardial and endocardial lead systems for third-generation cardioverter defibrillators (ICDs) and to assess the usefulness of diagnostic tools. One hundred forty patients with 61 epicardial (43.6%) and 79 nonthoracotomy systems (56.4%) were followed for 25 +/- 19 months. A total of 18 (12.9%) lead related complications were documented. Complications of epicardial systems were detected in 10 patients (16.4%) during a follow-up time of 36 +/- 8 months: crinkling of **patch** electrodes in 6 patients (9.8%), insulation breakage of sensing electrodes in 2 patients (3.3%), and adapter defect in 2 patients (3.3%). Eight of the patients (10.1%) with transvenous-subcutaneous systems had lead related complications during a 13 +/- 6 months follow-up: fracture of the subcutaneous **patch** lead in 2

patients (2.5%), dislodgement of the right ventricular lead in 2 patients (2.5%), dislodgement of the superior vena cava lead in 2 patients (2.5%), insulation breakage of sensing electrodes in 1 patient (1.3%), and connector defect in 1 patient (1.3%). There was no significant difference in the incidence of lead related complications between epicardial and endocardial systems ($P > 0.05$). Fractures, dislodgements, and crinklings were documented within the first 8 +/- 5 months by regular chest X ray. Defects of insulation, adapter, or connector were detected 22 +/- 10 months after implantation and were associated with delivery of multiple inappropriate ICD therapies. An operative lead revision was indicated for 4 epicardial (6.6%) and 6 endocardial (7.6%) lead systems. Conclusions: Endocardial lead systems offer a similar long-term stability as compared to epicardial lead systems. Chest X ray is the most useful tool to detect lead fracture, dislodgment, and **patch** crinkling. **Marker** recordings or real-time electrograms have not been helpful in this series to identify patients with suspected lead defects prior to the experience of inappropriate ICD discharges.

Record Date Created: 19960221

Record Date Completed: 19960221

16/7/5

DIALOG(R) File 155:MEDLINE(R)

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12687050 PMID: 7609549

Crinkling of epicardial defibrillator patches . A common and serious problem.

Molina J E; Benditt D G; Adler S

Department of Surgery, University of Minnesota, Minneapolis 55455, USA.

Journal of thoracic and cardiovascular surgery (UNITED STATES) Jul 1995

, 110 (1) p258-64, ISSN 0022-5223 Journal Code: 0376343

Comment in J Thorac Cardiovasc Surg. 1996 Mar;111(3) 681; Comment in PMID 8601989

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

The durability and reliability of the implantable cardioverter-defibrillator epicardial **patch** systems have not been reported. In 128 consecutive patients such systems manufactured by Cardiac Pacemakers, Inc. (St. Paul, Minn.) or Medtronic, Inc. (Minneapolis, Minn.) were implanted with 100% follow-up to investigate the rate of **patch** crinkling and its consequences. A total of 122 patients survived the operation (operative mortality, 6 patients: 4.7%). Ninety-four patients received Cardiac Pacemakers, Inc. AICD **patches** and 28 received Medtronic PCD **patches**. Patients had chest x-ray studies every 3 to 6 months and function of the defibrillator was checked every 3 months. Late mortality occurred in 17 patients (13%) leaving a total of 105 long-term survivors (82%) to the present. Among 122 survivors, severe crinkling of the **patches** occurred in 48 patients--33 in the Cardiac Pacemakers, Inc. AICD group (36%) and 15 in the PCD group (54%)--within 2 years of the implant. Crinkling of **patches** caused not only malfunction of the system, but also cardiac pain in three patients. Crinkling occurred as early as 2 months after implant and progressed throughout the period of observation. Fourteen patients later required implant of an additional transvenous defibrillator because of failure of the epicardial system. The percentage of transvenous implantable cardioverter-defibrillator systems needed was higher for the

Medtronic group (28%) than for the Cardiac Pacemakers, Inc. AICD group (6.3%). Both systems have shown an unacceptably high rate of **patch** crinkling that occurs in a relatively short time. There is no difference whether a thoracotomy or midline sternotomy is used or whether the **patches** are implanted intrapericardially or extrapericardially. The quest should continue for a better **patch** system **design**.

Record Date Created: 19950811

Record Date Completed: 19950811

16/7/6

DIALOG(R) File 155:MEDLINE(R)

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10484273 PMID: 10585086

A new patch for the Norwood procedure.

Gargiulo G; Napoleone C P; Solinas M; Frascaroli G; Pierangeli A
Department of Cardiac Surgery, Santa Orsola-Malpighi Hospital, University
of Bologna, Italy. gargiulo@orsola-malpighi.med.unibo.it

Annals of thoracic surgery (UNITED STATES) Nov 1999, 68 (5) p1873-4,
ISSN 0003-4975 Journal Code: 15030100R

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

The problems related to the pediatric pulmonary homograft availability and the possible transmission of viral infection led us to **design** a new **patch** for aortic enlargement in the Norwood procedure for hypoplastic left heart syndrome. This sterile bovine pericardial **patch** is not expensive and can be tailor-made.

Record Date Created: 19991214

Record Date Completed: 19991214

16/7/8

DIALOG(R) File 155:MEDLINE(R)

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07817467 PMID: 3388409

Experimental right ventricular outflow tract reconstruction with a composite Mitrathane monocusp patch : preliminary results.

Noera G; Gatti M; Massini C; Medici S I; Fattori G

Department of Cardiovascular Surgery, Lancisi Hospital, Ancona, Italy.

Thoracic and cardiovascular surgeon (GERMANY, WEST) Apr 1988, 36 (2)
p89-95, ISSN 0171-6425 Journal Code: 7903387

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Twenty large white pigs underwent normothermic right ventricular bypass, pulmonary artery valve excision and right ventricular outflow tract (RVOT) reconstruction using a synthetic material (Mitrathane). The animals were divided in two groups (ten for each group) for the RVOT reconstruction model: Group I with a composite monocusp **patch** (with a new **design** geometrically related to pulmonary artery circumference) and Group II without a valve mechanism. Four early postoperative deaths occurred in Group I (unrelated to monocusp **patch** function) and seven in Group II (due to acute right ventricular failure). Follow up of the six animals of Group I was 600-630 (average 617.5) days and of the three Group II animals was 95-110 (average 101.6) days. In Group I haemodynamic studies showed no

significant difference from preoperative values at 5 months while at 20 months there was a moderate valve insufficiency in all animals. In Group II severe right ventricular insufficiency was present in all animals and spontaneous death occurred after about 3 months. In Group I angiographic studies disclosed no evidence of graft calcification or stenosis while in Group II there was a moderate pulmonary trunk dilatation. Post mortem examination showed no signs of degeneration in any graft. Microscopic studies of both groups revealed an acellular layer of fibrin on the external surface and fibrous deposit on the inner part of the suture with the right ventricle. In Group I there were leukocyte and histocyte infiltration of the grafts. In these experiments our synthetic monocusp model showed good function and durability in comparison to a RVOT reconstruction without a valve mechanism.

Record Date Created: 19880801

Record Date Completed: 19880801

20/6/1

13761959 PMID: 9457549

Optimal bovine pericardial tissue selection sites. I. Fiber architecture and tissue thickness measurements.

Feb 1998

20/6/2

13669902 PMID: 9360067

Three-dimensional coupled fluid-structure simulation of pericardial bioprosthesis aortic valve function.

Sep-Oct 1997

20/6/3

12854515 PMID: 8523888

A comparison of macroscopic lipid content within porcine pulmonary and aortic valves. Implications for bioprosthesis valves.

Dec 1995

20/6/9

10867634 PMID: 11001337

Presurgical evaluation: current role of invasive EEG.

2000

20/6/10

07671181 PMID: 3429909

[Doppler evaluation of porcine mitral valve dysfunction]

Dec 1986

20/6/11

06996884 PMID: 4077858

Numerical simulation of steady turbulent flow through trileaflet aortic heart valves--I. Computational scheme and methodology.

1985

20/6/12

05942134 PMID: 7119634

A noninvasive method for locating a cardiac dipolar source in humans.

1982

20/7/8

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2004 The Dialog Corp. All rts. reserv.

11127711 PMID: 11196560

Fibrillation is more complex in the left ventricle than in the right ventricle .

Rogers J M; Huang J; Pedoto R W; Walker R G; Smith W M; Ideker R E
Department of Biomedical Engineering, University of Alabama at
Birmingham, 35294, USA. jmr@crml.uab.edu

Journal of cardiovascular electrophysiology (United States) Dec 2000,
11 (12) p1364-71, ISSN 1045-3873 Journal Code: 9010756

Contract/Grant No.: HL-28429; HL; NHLBI; HL-33637; HL; NHLBI

Comment in J Cardiovasc Electrophysiol. 2000 Dec;11(12) 1372-4; Comment
in PMID 11196561

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

INTRODUCTION: The mechanisms that maintain **ventricular** fibrillation (VF) are not completely understood. It has been proposed that increased **ventricular** wall thickness destabilizes VF wavefronts and therefore is an important determinant of VF activation patterns. We hypothesized that if this is the case, then VF patterns on the thin-walled right **ventricle** (RV) should be simpler than those on the thick-walled left **ventricle** (LV). METHODS AND RESULTS: In seven open chest pigs, we mapped VF simultaneously from two epicardial recording arrays, one on the RV and one on the LV. Each array contained 504 unipolar electrodes (in a 21 x 24 **grid**) spaced by 2 mm. We used specialized pattern analysis methods to compute quantitative descriptors of RV and LV activation patterns. Our data show that VF is more organized in the RV than the LV, containing fewer, larger wavefronts that follow fewer distinct pathways and are less likely to fragment or collide with other wavefronts. The incidence, size, and cycle length of reentrant circuits were similar in the two ventricles, but RV reentry persisted for more cycles. These results are not predicted by the differences in electrophysiologic properties between LV and RV that have been reported in mammalian hearts. CONCLUSION: The geometry of the **ventricular** wall, particularly wall thickness, is an important determinant of VF activation patterns.

Record Date Created: 20010122

Record Date Completed: 20010301

33/7/1

DIALOG(R) File 155:MEDLINE(R)

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13943816 PMID: 9642757

[Prolonged video EEG monitoring in differential diagnosis of seizures and in presurgical epilepsy diagnosis]

Das prolongierte Video-EEG-Monitoring in der Differentialdiagnose von Anfällen und in der prachirurgischen Epilepsiediagnostik.

Baumgartner C; Lindinger G; Lurger S; Aull S; Bacher J; Leutmezer F;
Olbrich A; Pataria E; Serles W; Deecke L
Universitätsklinik für Neurologie, Wien.

Wiener medizinische Wochenschrift (1946) (AUSTRIA) 1998, 148 (1-2)
p2-8, ISSN 0043-5341 Journal Code: 8708475

Document type: Journal Article; Review; Review, Tutorial ; English
Abstract

Languages: GERMAN

Main Citation Owner: NLM

Record type: Completed

Prolonged video-EEG-monitoring facilitates a correlation of clinical seizure semiology and corresponding EEG changes. Indications for prolonged video-EEG-monitoring comprise differential diagnosis of epileptic and psychogenic seizures, correct classification of epileptic syndromes and presurgical evaluation of patients with medically refractory focal epilepsies. 6000 patients in Austria would benefit from epilepsy surgery with an additional 150 bis 200 new patients appearing each year. Presurgical evaluation consists of a non-invasive Phase I and an invasive Phase II. During Phase I each patient is evaluated with a prolonged video-EEG-monitoring with scalp-EEG, a MRI-scan, a SPECT- and/or PET-scan, a neuropsychological evaluation and a Wada-test. If the epileptogenic zone cannot be localized adequately with these methods, invasive electrophysiological techniques with intracranial (epidural peg-electrodes, foramen-ovale electrodes, subdural strip or grid electrodes) or intracerebral electrodes (stereotactically implanted depth electrodes) have to be applied. Epilepsy surgery renders 70 to 80% of patients seizure free and thus can be regarded an effective and safe treatment option for patients with medically refractory focal epilepsies. (80 Refs.)

Record Date Created: 19980812

Record Date Completed: 19980812

33/7/3

DIALOG(R) File 155:MEDLINE(R)

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11175759 PMID: 11165607

Complications and results of subdural grid electrode implantation in epilepsy surgery.

Lee W S; Lee J K; Lee S A; Kang J K; Ko T S

Department of Neurosurgery, Asan Medical Center, College of Medicine, University of Ulsan, Seoul, South Korea.

Surgical neurology (United States) Nov 2000, 54 (5) p346-51, ISSN 0090-3019 Journal Code: 0367070

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

BACKGROUND: We assessed the risk of delayed subdural hematoma and other complications associated with subdural grid implantation. **METHODS:** Forty-nine patients underwent subdural grid implantation with/without subdural strips or depth electrodes from January 1994 to August 1998. To identify the risk associated with subdural grid implantation, a retrospective review of all patients' medical records and radiological studies was performed. **RESULTS:** The major complications of 50 subdural grid electrode implantations were as follows: four cases (7.8%) of delayed subdural hematoma at the site of the subdural grid, requiring emergency operation; two cases (3.9%) of infection; one case (2.0%) of epidural hematoma; and one case (2.0%) of brain swelling. After subdural hematoma removal, the electrodes were left in place. CCTV monitoring and cortical stimulation studies were continued thereafter. No delayed subdural hematoma has occurred since routine placement of subdural drains was begun. **CONCLUSIONS:** In our experience the worst complication of subdural grid implantation has been delayed subdural hematoma. Placement of subdural drains and close observation may be helpful to prevent this serious complication.

Record Date Created: 20010222

Record Date Completed: 20010329

33/7/4

DIALOG(R) File 155:MEDLINE(R)

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10033073 PMID: 8149206

Cortical tongue area studied by chronically implanted subdural electrodes--with special reference to parietal motor and frontal sensory responses.

Urasaki E; Uematsu S; Gordon B; Lesser R P

Department of Neurosurgery, Johns Hopkins University School of Medicine, Baltimore, Maryland.

Brain; a journal of neurology (ENGLAND) Feb 1994, 117 (Pt 1) p117-32

, ISSN 0006-8950 Journal Code: 0372537

Contract/Grant No.: RO1-NS26553; NS; NINDS; RO3-DC01181; DC; NIDCD

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Motor and sensory cortical tongue representations were examined in 40 patients with intractable seizures who underwent chronic subdural **electrode grid implantation**. Tongue responses were observed in a wide area 4.5 cm anterior and 3 cm posterior to the central sulcus. The distribution of the responses was not influenced by whether the responses were unilateral or bilateral. In patients with fronto-parietal lesions, the tongue motor area was located significantly more superior to the Sylvian fissure and more anterior to the central sulcus than was the tongue motor area of patients without organic lesion. Both motor and sensory responses were found outside of the classic precentral or postcentral area on the lateral surface of the cortex. Motor responses ('parietal motor responses') could occur posterior to the central sulcus and, rarely, sensory responses ('frontal sensory responses') were identified anterior to the central sulcus. These paradoxical parietal motor and frontal sensory responses were seen in 17 out of 40 (42.5%) patients. Nine of these 17 patients had no organic brain lesion on MRI. Clinical factors, such as patient's age, duration of seizures and cognitive functions (IQ, word fluency score), did not influence the frequency of the paradoxical responses. However, patients with brain lesions showed a tendency to have associated paradoxical responses ($P < 0.05$). In conclusion, paradoxical responses are not uncommon in epilepsy patients, particularly in those with organic lesions. The physiological and clinical implications of the paradoxical responses are discussed.

Record Date Created: 19940509

Record Date Completed: 19940509

File 155:MEDLINE(R) 1951-2004/Sep W2
 File 5:Biosis Previews(R) 1969-2004/Sep W2
 File 73:EMBASE 1974-2004/Sep W1
 File 34:SciSearch(R) Cited Ref Sci 1990-2004/Sep W1
 File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
 File 144:Pascal 1973-2004/Sep W1
 File 94:JICST-EPlus 1985-2004/Aug W3
 File 95:TEME-Technology & Management 1989-2004/Jun W1
 File 99:Wilson Appl. Sci & Tech Abs 1983-2004/Aug
 File 2:INSPEC 1969-2004/Sep W1
 File 6:NTIS 1964-2004/Aug W4
 File 8:Ei Compendex(R) 1970-2004/Sep W1
 File 35:Dissertation Abs Online 1861-2004/Aug
 File 65:Inside Conferences 1993-2004/Sep W2
 File 71:ELSEVIER BIOBASE 1994-2004/Sep W1
 File 315:ChemEng & Biotec Abs 1970-2004/Aug
 File 358:Current BioTech Abs 1983-2004/Aug
 S1 62952 IMPLANT? (1N) (DEFIBRILLATOR? OR CARDIOVERTER OR ELECTRODE? ?
 OR MESH OR PATCH OR PATCHES) OR (EPICARDIAL OR VENTRICULAR OR
 SUBCUTANEOUS OR DEFIBRILLAT?) (1W) (PATCH OR PATCHES OR MESH)
 S2 1569946 COUPLED OR BONDED OR ATTACHED OR AFFIXED
 S3 57078 MARKING? ? OR INDICIA
 S4 466915 INK OR THREAD? ? OR WIRE OR WIRES OR RADIOPAQUE OR (MAGNET-
 IC() RESONANCE() IMAG??? OR MRI) (1N) SENSITIVE
 S5 15554 (PARALLEL OR RADIAL OR (HORIZONTAL(2N) VERTICAL)) (2N) (LINES
 OR LINES) OR (STARBURST OR STRIPE? ? OR CONCENTRIC() CIRCLE? ?
 OR GRIDLIKE) (1N) (PATTERN? ? OR DESIGN? ? OR CONFIGUR?)
 S6 52 S1 (S) S2 (S) S3:S4
 S7 0 S5 AND S6
 S8 0 S1(S) S3:S4 AND S5
 S9 12 S1 AND S5
 S10 4 RD (unique items) [3 too recent; 1 not relevant]
 S11 24 RD S6 (unique items)
 S12 5 S11/2002:2004
 S13 1 S11/2001 [not relevant]
 S14 18 S11 NOT S12:S13
 S15 18 Sort S14/ALL/PY,A
 S16 26970 (PATTERN? ? OR DESIGN? ? OR CONFIGUR?) (5N) (LINES OR STRIPS
 OR CIRCLES OR STARBURST)
 S17 0 S14 AND S16
 S18 1501295 LINES OR STRIPES OR CIRCLES OR STARBURST
 S19 8254163 PATTERN? ? OR DESIGN? ?
 S20 2 S14 AND S18:S19 [not relevant]
 S21 1 S1(5N) S2(5N) S3:S4 [too recent]

15/6/2 (Item 2 from file: 155)

04547500 PMID: 326787

Evolution of the mandibular mesh implant.

Jul 1977

15/6/3 (Item 3 from file: 8)

00796555

Title: AMBULATORY RECORDING OF INTESTINAL ELECTRICAL ACTIVITY IN MAN.

Publication Year: 1978

15/6/4 (Item 4 from file: 155)

04958034 PMID: 736424

Auditory prostheses research with multiple channel intracochlear stimulation in man.

Nov-Dec 1978

15/6/7 (Item 7 from file: 155)

06591005 PMID: 6205861

A multiple floating microelectrode for chronic implantation and longterm single unit recording in the cat.

Sep 1984

15/6/8 (Item 8 from file: 155)

07013089 PMID: 3942427

The use of temporary atrial electrodes to improve diagnostic capabilities with Holter monitoring after cardiac surgery.

Jan 1986

15/6/10 (Item 10 from file: 95)

00716626 F93102030976

Interference from a hand held radiofrequency remote control causing discharge of an implantable defibrillator

1993

15/6/14 (Item 14 from file: 155)

14246675 PMID: 10067936

Thalamic stimulation and functional magnetic resonance imaging: localization of cortical and subcortical activation with implanted electrodes. Technical note.

Mar 1999

15/6/15 (Item 15 from file: 5)

0012563029 BIOSIS NO.: 200000281342

Implantable soluble electrode system

1999

15/6/16 (Item 16 from file: 5)

0013088739 BIOSIS NO.: 200100260578

Method of making a cochlear electrode array with electrode contacts on medial side

2000

15/6/17 (Item 17 from file: 5)

0013065589 BIOSIS NO.: 200100237428

Cochlear electrode array with electrode contacts on medial side

2000

15/6/18 (Item 18 from file: 155)

11078924 PMID: 11112799

Cytokine responses to LTP induction in the rat hippocampus: a comparison of in vitro and in vivo techniques.

Nov-Dec 2000

File 149:TGG Health&Wellness DB(SM) 1976-2004/Aug W4
 File 135:NewsRx Weekly Reports 1995-2004/Sep W1
 File 441:ESPICOM Pharm&Med DEVICE NEWS 2004/Sep W2
 File 16:Gale Group PROMT(R) 1990-2004/Sep 15
 File 160:Gale Group PROMT(R) 1972-1989
 File 148:Gale Group Trade & Industry DB 1976-2004/Sep 15
 File 621:Gale Group New Prod.Annou.(R) 1985-2004/Sep 15
 File 636:Gale Group Newsletter DB(TM) 1987-2004/Sep 15
 File 9:Business & Industry(R) Jul/1994-2004/Sep 14
 File 98:General Sci Abs/Full-Text 1984-2004/Jul
 File 370:Science 1996-1999/Jul W3
 File 369:New Scientist 1994-2004/Sep W1
 File 20:Dialog Global Reporter 1997-2004/Sep 15

Set	Items	Description
S1	8061	IMPLANT?(1N) (DEFIBRILLATOR? OR CARDIOVERTER OR ELECTRODE? ? OR MESH OR PATCH OR PATCHES) OR (EPICARDIAL OR VENTRICULAR OR SUBCUTANEOUS OR DEFIBRILLAT?) (1W) (PATCH OR PATCHES OR MESH)
S2	1092145	COUPLED OR BONDED OR ATTACHED OR AFFIXED
S3	242774	MARKING? ? OR INDICIA
S4	5314566	INK OR THREAD? ? OR WIRE OR WIRES OR RADIOPAQUE OR (MAGNET-IC() RESONANCE() IMAG??? OR MRI) (1N) SENSITIVE
S5	8147	(PARALLEL OR RADIAL OR (HORIZONTAL(2N) VERTICAL)) (2N) (LINES OR LINES) OR (STARBURST OR STRIPE? ? OR CONCENTRIC() CIRCLE? ? OR GRIDLIKE) (1N) (PATTERN? ? OR DESIGN? ? OR CONFIGUR?)
S6	23	S1(S) S2(S) S3:S4
S7	0	S5(S) S6
S8	0	S1(S) S5
S9	19	RD S6 (unique items)
S10	10	S9/2002:2004
S11	1	S9/2001 [too recent]
S12	8	S9 NOT S10:S11
S13	8	Sort S12/ALL/PD,A

13/8/1 (Item 1 from file: 160)

DIALOG(R) File 160:(c) 1999 The Gale Group. All rts. reserv.
 00276568

CONTINUED!P In the proposed artificial-vision equipment, a glass eye containing an image-sensing array--the camera--is attached to the remaining eye muscles and mounted in the patient's eye socket.

January 24, 1974

13/8/2 (Item 2 from file: 160)

DIALOG(R) File 160:(c) 1999 The Gale Group. All rts. reserv.
 00370189

The Boston Arm, an electric artificial limb, will reach commercial markets in 6-8 mo, according to Liberty Mutual Research Center spokesmen.
 March, 1977

PRODUCT: *Prosthetic Appliances (3842130); United States (1USA)
 EVENT: *Product Design & Development (33)

13/8/3 (Item 3 from file: 149)

DIALOG(R) File 149:(c) 2004 The Gale Group. All rts. reserv.

01188042 SUPPLIER NUMBER: 07592520 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Waiting for the bionic man; researchers can make paralyzed patients walk in the lab by jolting muscles with electricity. (Cleveland, OH, MetroHealth Medical Center)

1989

WORD COUNT: 834 LINE COUNT: 00081
SPECIAL FEATURES: illustration; photograph; chart
DESCRIPTORS: United States. National Aeronautics and Space; United States.
Veterans Administration--Contracts; MetroHealth Medical Center
(Cleveland, Ohio)--Research; Bionics--Usage; Electric stimulation--
Research; Industrial research--Contracts
SIC CODES: 8733 Noncommercial research organizations
FILE SEGMENT: MI File 47

13/8/4 (Item 4 from file: 149)

DIALOG(R)File 149:(c) 2004 The Gale Group. All rts. reserv.
01355580 SUPPLIER NUMBER: 12149265 (USE FORMAT 7 OR 9 FOR FULL TEXT)
To walk again. (new treatments for victims of paralysis)

1992

WORD COUNT: 1287 LINE COUNT: 00127
SPECIAL FEATURES: illustration; photograph
DESCRIPTORS: Paralysis--Care and treatment; Spinal cord injuries--Care and
treatment
FILE SEGMENT: MI File 47

13/3,K/5 (Item 5 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2004 The Gale Group. All rts. reserv.
02951515 Supplier Number: 43993790
Lilly unit's heart system approved
Indianapolis Star (IN), pD2
July 27, 1993
Language: English Record Type: Abstract
Document Type: Newspaper; Trade
ABSTRACT:

...uses a catheter to route wires into the heart, like a balloon
angioplasty catheter. The **wires** are then attached to a **defibrillator/**
pacemaker implanted underneath the skin. The device restarts the...

13/3,K/6 (Item 6 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2004 The Gale Group. All rts. reserv.
06810074 SUPPLIER NUMBER: 14756639 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Science reporters hear wide range of recent data at 12th annual conference.
(American Medical Association's 12th Annual Science Reporters
Conference)(Medical News & Perspectives)
Skolnick, Andrew A.; Manack, Leo
JAMA, The Journal of the American Medical Association, v270, n20, p2413(5)
Nov 24, 1993
ISSN: 0098-7484 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 5598 LINE COUNT: 00446

File 350:Derwent WPIX 1963-2004/UD,UM &UP=200458

File 347:JAPIO Nov 1976-2004/May(Updated 040903)

Set	Items	Description
S1	2298	IMPLANT?(1N) (DEFIBRILLATOR? OR CARDIOVERTER OR ELECTRODE? ? OR MESH OR PATCH OR PATCHES) OR (EPICARDIAL OR VENTRICULAR OR SUBCUTANEOUS OR DEFIBRILLAT?) (1W) (PATCH OR PATCHES OR MESH)
S2	1597933	COUPLED OR BONDED OR ATTACHED OR AFFIXED
S3	66112	MARKING? ? OR INDICIA
S4	1090747	INK OR THREAD? ? OR WIRE OR WIRES OR RADIOPAQUE OR (MAGNET-IC() RESONANCE() IMAG??? OR MRI) (1N) SENSITIVE
S5	18240	(PARALLEL OR RADIAL OR (HORIZONTAL(2N) VERTICAL)) (2N) (LINES OR LINES) OR (STARBURST OR STRIPE? ? OR CONCENTRIC() CIRCLE? ? OR GRIDLIKE) (1N) (PATTERN? ? OR DESIGN? ? OR CONFIGUR?)
S6	118473	IC=(A61M-001? OR A61F-002? OR A61B-017? OR A61B-019?)
S7	1	S1 AND S2 AND S3:S4 AND S5 [a duplicate]
S8	4	S1 AND S5
S9	3	S8 NOT S7
S10	10	S1(S) S2(S) S3:S4
S11	9	S10 NOT S8
S12	951637	PATTERN? ? OR DESIGN? ?
S13	463685	CONFIGUR? OR ARRAY? ?
S14	23246	S3:S4(10N) S12
S15	8174	S3:S4(10N) S13
S16	20	S1 AND S14:S15
S17	17	S16 NOT (S8 OR S10)
S18	0	S6 AND S17
S19	144	S1 AND S6
S20	2	S19 AND S3(S) S4
S21	1	S20 NOT (S8 OR S10 OR S16)
S22	140	S19 NOT (S8 OR S10 OR S16 OR S20)
S23	27	S22 AND S3:S4
S24	4	S23 AND S12:S13
S25	32	S22 AND S12:S13
S26	20	S1(S) S12:S13 AND S6
S27	18	S25 AND S26

9/19/1 (Item 1 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

011549694 **Image available**

WPI Acc No: 1997-526175/199748

XRPX Acc No: N97-438529

Auditive prosthesis with cochlear implantable electrode set - includes electrode pole extending over same distance as set of electrode poles with signal generator to generate electric fields between them

Patent Assignee: PHILIPS HEARING IMPLANTS (PHIG); ANTWERP BIONIC SYSTEMS NV (ANTW-N); OFFECIERS E (OFFE-I); PEETERS S (PEET-I); VAN RUITEN N (VRUI-I); FE OFFECIERS (FEOF-N); VAN RUITEN NA (VRUI-N); COCHLEAR LTD (COCH-N)

Inventor: OFFECIERS E; PEETERS S; VAN RUITEN N

Number of Countries: 076 Number of Patents: 009

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9738653	A1	19971023	WO 97BE47	A	19970417	199748 B
AU 9725626	A	19971107	AU 9725626	A	19970417	199809
BE 1010268	A3	19980407	BE 96334	A	19960417	199824

EP 900070	A1	19990310	EP 97917183	A	19970417	199914
			WO 97BE47	A	19970417	
AU 713074	B	19991125	AU 9725626	A	19970417	200006
JP 2000508210	W	20000704	JP 97536594	A	19970417	200037
			WO 97BE47	A	19970417	
US 6355064	B1	20020312	WO 97BE47	A	19970417	200221
			US 99171329	A	19990628	
EP 900070	B1	20031210	EP 97917183	A	19970417	200405
			WO 97BE47	A	19970417	
DE 69726723	E	20040122	DE 626723	A	19970417	200415
			EP 97917183	A	19970417	
			WO 97BE47	A	19970417	

Priority Applications (No Type Date): BE 96334 A 19960417

Cited Patents: DE 2823798; EP 7157; US 4408608; WO 9306698

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing	Notes
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WO 9738653	A1	E	18	A61F-011/04		
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Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU
CZ DE DK EE ES FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU
LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG
US UZ VN YU

Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GR IE IT
KE LS LU MC MW NL OA PT SD SE SZ UG

AU 9725626	A				Based on patent	WO 9738653
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BE 1010268	A3	F		A61F-000/00		
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EP 900070	A1	E			Based on patent	WO 9738653
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Designated States (Regional): AT BE DE FR GB NL

AU 713074	B				Previous Publ. patent	AU 9725626
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Based on patent WO 9738653

JP 2000508210	W		17	A61F-011/00	Based on patent	WO 9738653
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US 6355064	B1			A61F-002/18	Based on patent	WO 9738653
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EP 900070	B1	E		A61F-011/04	Based on patent	WO 9738653
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Designated States (Regional): AT BE DE FR GB NL

DE 69726723	E			A61F-011/04	Based on patent	EP 900070
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Based on patent WO 9738653

Abstract (Basic): WO 9738653 A

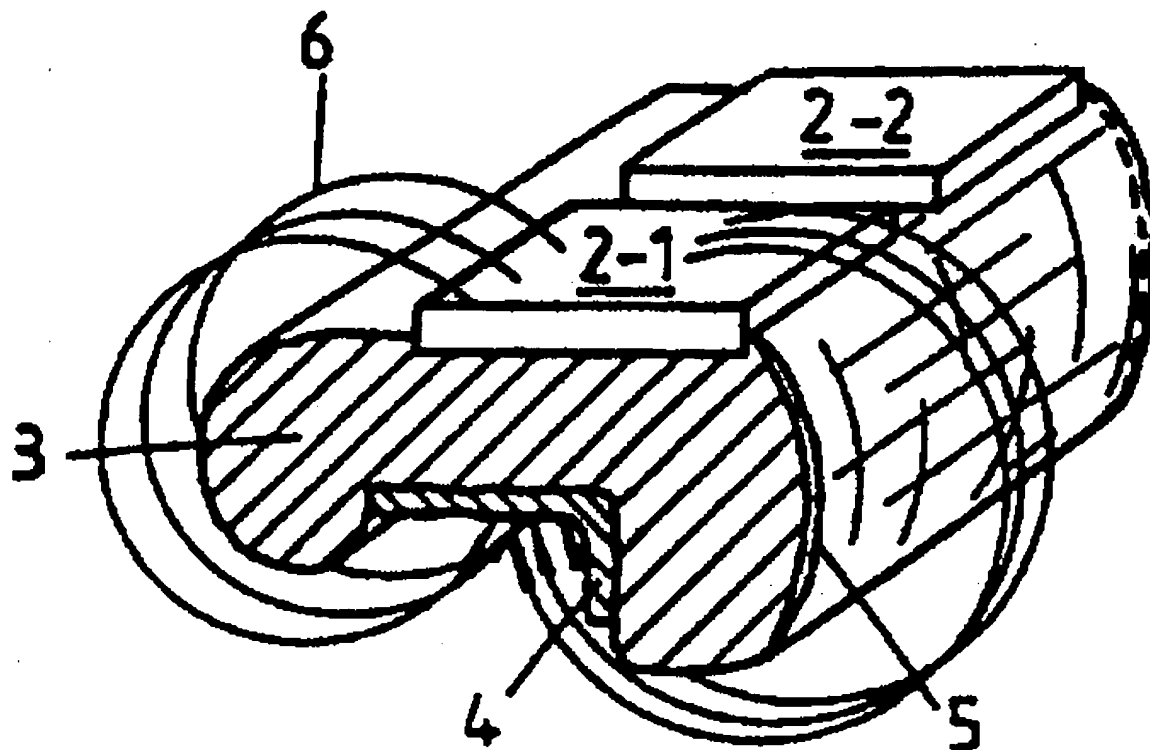
The auditive prosthesis includes an **implantable electrode set** applied on a carrier [3] for applying electrical currents for stimulating auditory nerves in the modiolus. The electrode set comprises a first series of electrode poles [2-1,2-2] arranged beside, and at a distance from, each other along a first longitudinal side of the carrier and are individually connected to a signal generator.

The electrode set also comprises a second electrode pole [4], connected to the signal generator, and arranged along a second longitudinal side of the carrier extending over the same distance as that over which the first electrode poles extend. The signal generator generates, between electrode poles to be selected, electrical field lines with **radial** and/or longitudinal components.

ADVANTAGE - Achieves stimulation with higher spacious resolution than is possible with conventional devices.

Dwg.2/8

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Derwent Class: P32; P34; S05
International Patent Class (Main): A61F-000/00; A61F-002/18; A61F-011/00;
A61F-011/04
International Patent Class (Additional): A61N-001/05; A61N-001/36
File Segment: EPI; EngPI
Manual Codes (EPI/S-X): S05-F01

9/19/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
010025673 **Image available**
WPI Acc No: 1994-293386/199436
Related WPI Acc No: 1993-329584
XRPX Acc No: N94-230926

Perforated metallic mesh implant plate structure for fixing of bone fractures - has multiplicity of square perforations extending from free side of plate having arcuate chamfer of uniform configuration

Patent Assignee: TIMESH INC (TIME-N)

Inventor: MORGAN F H

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5346492	A	19940913	US 92860029	A	19920330	199436 B
			US 9328207	A	19930309	

Priority Applications (No Type Date): US 9328207 A 19930309; US 92860029 A 19920330

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 5346492	A	5	A61F-002/28	CIP of application US 92860029

Abstract (Basic): US 5346492 A

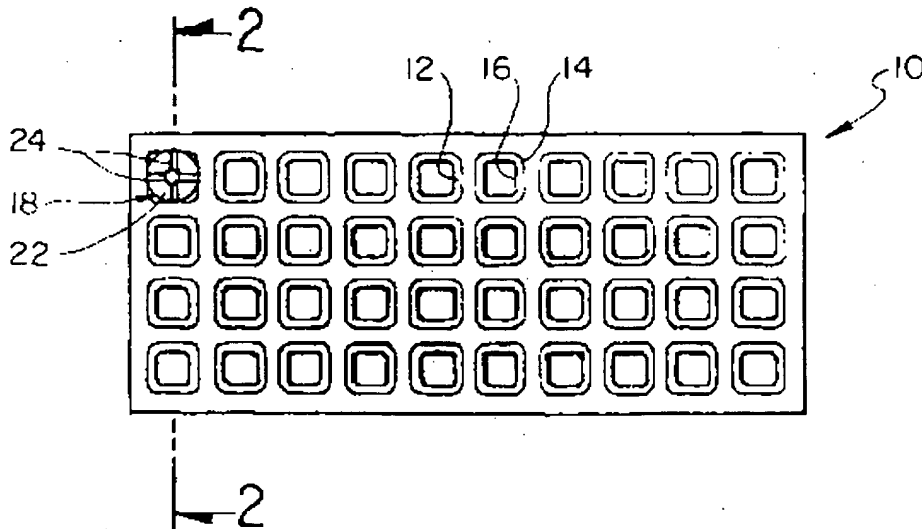
A multiplicity of substantially square perforations extending from the outer face side of the plate structure to the bone interface side and arranged uniformly in parallel rows and **parallel lines**. Each perforation includes an arcuate chamber of uniform configuration extending inwardly from the outer face side of the plate structure to the bone interface side about the entire periphery.

When bone screws, having a screw head configuration including a hemispherical underside portion and a low profile upper head portion, are applied through the perforations of the mesh plate structure from the outer face side and screwed into bone proximate the bone interface side, with the screw heads seated in congruent fitment in the perforation, there is presented a relatively non-obtrusive surface to the face side of the plate structure.

ADVANTAGE - For reconstructive surgery provides the surgeon with an implantable plate material which can be easily cut to desired contour and shaped or bent to conform to bone fracture and bone reconstruction sites without inducing mechanical stresses into the material.

Dwg. 1/2

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Derwent Class: P32
International Patent Class (Main): A61F-002/28
File Segment: EngPI

11/26, TI/1 (Item 1 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
013759616
WPI Acc No: 2001-243828/200125

Implantable electrode array for spinal stimulation, comprises silicone paddle with electrodes, flexible membrane, flexible memory shape wire, and conductive wire for making electrical contact with each electrode

11/26, TI/3 (Item 3 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

010306049

WPI Acc No: 1995-207307/199528

Implantable microelectrodes for neuron stimulation - are mfd. from dielectric-coated conductive body ablated by focussed beam of ultraviolet light to create electrode site including sharp point

11/26, TI/5 (Item 5 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

009996102

WPI Acc No: 1994-263813/199432

Implantable defibrillator patch electrode for cardiac pacing - uses mesh bonded between fabric reinforced silicone backing and facing sheets, with facing sheet having central oval and lattices

11/26, TI/6 (Item 6 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

009966037

WPI Acc No: 1994-233750/199428

Implantable defibrillator patch lead - is affixed to exterior surface of heart and connected via conductor to signal processing and power generating unit

11/26, TI/7 (Item 7 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

009803781

WPI Acc No: 1994-083635/199411

Implantable defibrillator patch lead - has electrical connector coupled to proximal end of electrical conductor, and wire mesh patch electrode at distal end of conductor

11/19/2 (Item 2 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

010551935 **Image available**

WPI Acc No: 1996-048888/199605

XRPX Acc No: N96-041073

Sense array intelligent patch lead for implantable defibrillator - has sensor electrodes disposed in array and connected to microcircuit to sense depolarisation wave as it propagates through ventricular tissue and monitor timing, direction of propagation, and point of initiation of successive depolarisation

Patent Assignee: PACESETTER INC (PACE-N)

Inventor: YANG M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5476503	A	19951219	US 94218956	A	19940328	199605 B

Priority Applications (No Type Date): US 94218956 A 19940328

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 5476503	A	12	A61N-001/05	

Abstract (Basic): US 5476503 A

The patch lead for use with an implantable defibrillator includes

a patch lead body having electrical conductors and a connector at a proximal end for electrically connecting electrical conductors to the implantable defibrillator. A patch electrode is affixed to a distal end of the patch lead body. The patch electrode includes a wire mesh mounted on an insulation backing element, and is electrically connected to one of the first number of electrical conductors.

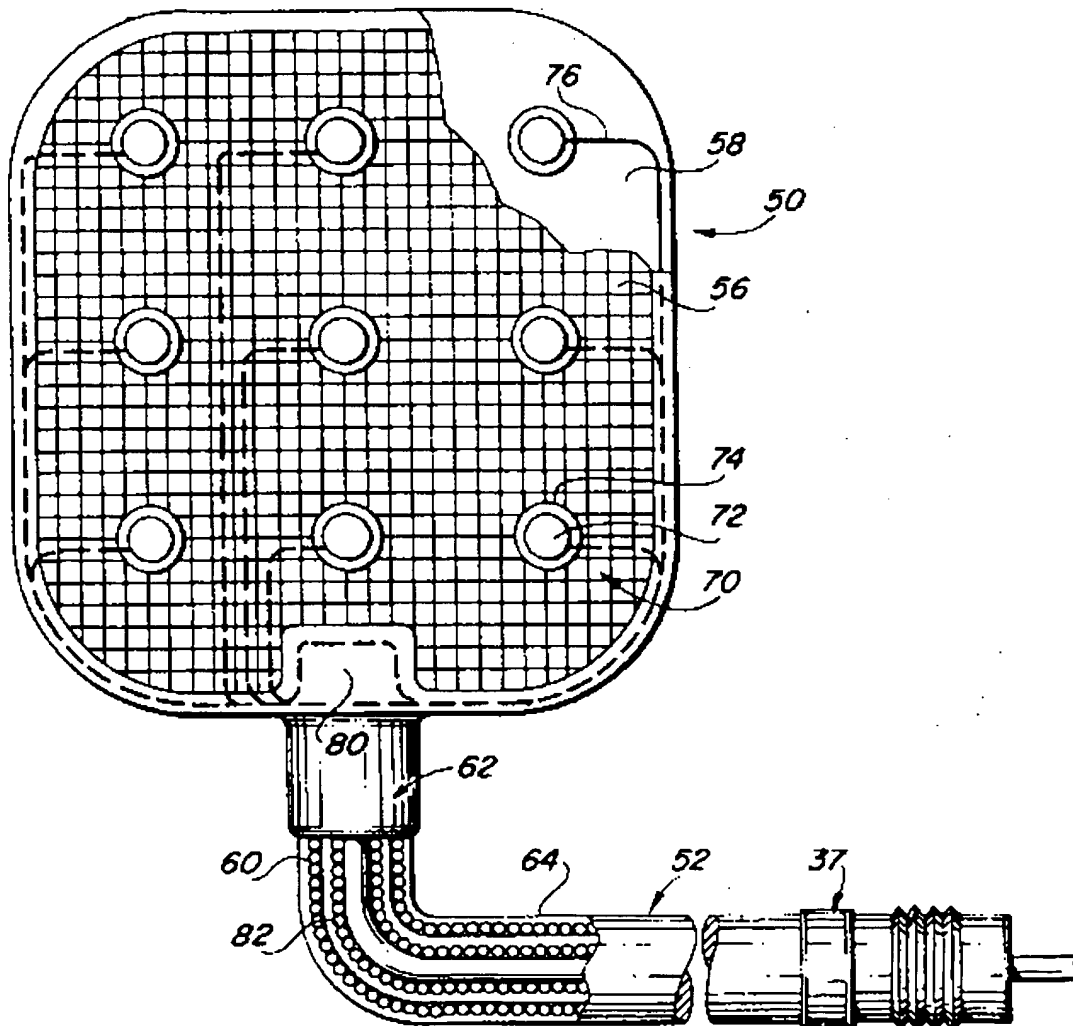
A number of sense electrodes are affixed to the patch electrode and electrically insulated from the wire mesh, and a

microprocessor is affixed to the patch electrode and electrically connected to the sense electrodes. The microprocessor is electrically connected to at least one of the electrical conductors of the lead body, and processes signals provided by the sense electrodes and produces at least one output signal indicative of cardiac electrical activity.

USE/ADVANTAGE - Sensor electrodes disposed in array allows sensing of depolarisation wave as it propagates through ventricular tissue, and allows for degree of precision in monitoring cardiac electrical activity.

Dwg. 2/6

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Derwent Class: P34; S05
International Patent Class (Main): A61N-001/05

File Segment: EPI; EngPI

Manual Codes (EPI/S-X): S05-A02; S05-D01A1

11/19/4 (Item 4 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

010180798 **Image available**

WPI Acc No: 1995-082051/199511

XRAM Acc No: C95-036845

XRPX Acc No: N95-064980

Long term muscle stimulation method for e.g cardiac muscles - using test probe to produce electric current at various muscle tissue locations and comparing threshold currents at which muscle reacts to determine optimum location for electrode

Patent Assignee: MEDTRONIC INC (MEDT)

Inventor: BAETEN C X; CAMPS A

Number of Countries: 020 Number of Patents: 009

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9503849	A1	19950209	WO 94US6366	A	19940608	199511	B
AU 9471007	A	19950228	AU 9471007	A	19940608	199522	
US 5425751	A	19950620	US 93100594	A	19930730	199530	
EP 711187	A1	19960515	EP 94920094	A	19940608	199624	
			WO 94US6366	A	19940608		
JP 8507946	W	19960827	WO 94US6366	A	19940608	199702	
			JP 95505802	A	19940608		
EP 711187	B1	19970521	EP 94920094	A	19940608	199725	
			WO 94US6366	A	19940608		
DE 69403338	E	19970626	DE 603338	A	19940608	199731	
			EP 94920094	A	19940608		
			WO 94US6366	A	19940608		
AU 683902	B	19971127	AU 9471007	A	19940608	199805	
CA 2167399	C	20000725	CA 2167399	A	19940608	200047	
			WO 94US6366	A	19940608		

Priority Applications (No Type Date): US 93100594 A 19930730

Cited Patents: EP 145176; US 5009229

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9503849 A1 E 45 A61N-001/36

Designated States (National): AU CA JP

Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

AU 9471007 A A61N-001/36 Based on patent WO 9503849

US 5425751 A 6 A61N-001/04

EP 711187 A1 E A61N-001/36 Based on patent WO 9503849

Designated States (Regional): DE FR GB IT NL SE

JP 8507946 W 13 A61N-001/372 Based on patent WO 9503849

EP 711187 B1 E 7 A61N-001/36 Based on patent WO 9503849

Designated States (Regional): DE FR GB IT NL SE

DE 69403338 E A61N-001/36 Based on patent EP 711187

Based on patent WO 9503849

AU 683902 B A61N-001/36 Previous Publ. patent AU 9471007

Based on patent WO 9503849

CA 2167399 C E A61N-001/36 Based on patent WO 9503849

Abstract (Basic): WO 9503849 A

The method for determining an optimum muscle insertion location for

a stimulation electrode involves using a test probe to establish electrical contact with a selected portion of muscle tissue to be stimulated. A conductive lead wire (10) is connected to the test probe and for several locations a threshold measuring electric current is imposed on the test probe through the conductive lead to stimulate the muscle tissue.

For each of the locations, a threshold current measurement is produced at which the muscle reacts to the stimulation. The location which has an optimum muscular threshold reaction is identified as the location for permanent stimulation electrode implantation.

USE/ADVANTAGE - Electrical muscle stimulation for e.g reconstructive cardiac surgery. Improves functioning of long-term stimulating implant electrode. Enables optimum location for implanting an electrode to produce most efficient muscle stimulation to be determined.

Dwg.2/2

Abstract (Equivalent): EP 711187 B

A stimulation electrode placement determination apparatus for determining an optimum muscle tissue insertion location for a stimulation electrode (44) comprising a test probe (32) to establish electrical contact with a selected portion of muscle tissue to be stimulated; a conductive lead wire (10) connected to said test probe (32); means for imposing a threshold-measuring electric current on said test probe (32) through said conductive lead wire (10) to stimulate said muscle tissue at several locations; and means for producing a threshold current measurement at which said muscle tissue reacts to said stimulation at each of said locations; wherein it can be determined among said several locations, one which has an optimum muscular threshold reaction, such being identified as the optimum location for permanent stimulation **electrode implantation**; and wherein said test probe comprises a suture needle (32) distally **coupled** to said stimulation electrode (44) for facilitating implantation of said stimulation electrode (44).

Dwg.2/2

Abstract (Equivalent): US 5425751 A

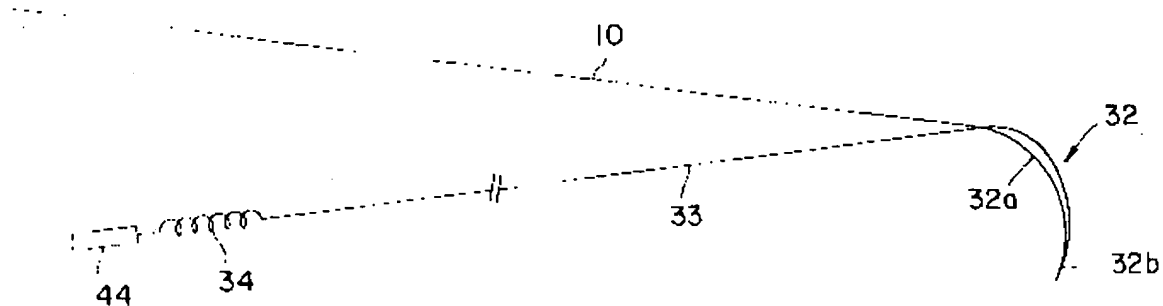
A stimulation electrode placement electrode is obtd. by providing a test probe for establishing electrical contact with a selected portion of muscle tissue to be stimulated; connecting a conductive lead wire to the test probe; imposing a threshold measuring electric current on the probe through the wire to stimulate the muscle tissue for several locations; determining among the locations one which has an optimum muscular threshold reaction and identifying that as the optimum location for permanent electrode implantation; and cutting the conductor wire leading to the test probe and inserting a stimulation electrode into the muscle tissue at the determined optimum location.

Pref. the method includes the step of providing a suture needle coupled to a distal end of the stimulation electrode.

USE - For reconstructive cardiac surgery.

Dwg.0/2

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Derwent Class: A96; P34; S05
International Patent Class (Main): A61N-001/04; A61N-001/36; A61N-001/372
International Patent Class (Additional): A61N-001/05
File Segment: CPI; EPI; EngPI
Manual Codes (CPI/A-N): A12-E13; A12-V03
Manual Codes (EPI/S-X): S05-A02; S05-D01D
Polymer Indexing (PS):

<01>

001 017; P1592-R F77 D01

002 017; ND01; K9416; K9596 K9483; K9687 K9676; K9712 K9676; B9999
B3270 B3190; Q9999 Q8026 Q7987; Q9999 Q7874; Q9999 Q7374-R Q7330;
Q9999 Q6644-R

17/26, TI/3 (Item 3 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015912789

WPI Acc No: 2004-070629/200407

Multicontact electrode array for implantable stimulator, has helically wound wires whose distal ends are bonded electrically and mechanically to ring contacts, by passing through slits of silicone tube

17/26, TI/4 (Item 4 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014884397

WPI Acc No: 2002-705103/200276

Implantable electrode array for spiral stimulation, has shape-memory wire attachment loop exposed in opening of foldable paddle, and used with insertion stylet for positioning electrode array during implantation

17/26, TI/8 (Item 8 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013521816

WPI Acc No: 2001-006022/200101

Implantable cochlea electrode array for use with tissue stimulation device, has carrier which assumes spiral shape of wire, when positioning stylet inserted into channel of carrier is warmed at specific temperature

17/26, TI/10 (Item 10 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

009917074

WPI Acc No: 1994-184785/199423

Defibrillation system with expandable electrode and inflator - uses

piston pump to distend and collapse intracardial electrode at onset and termination of abnormal cardiac activity

17/26, TI/11 (Item 11 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
009855403
WPI Acc No: 1994-135259/199416

Stent type defibrillation electrode structures - uses cage of electrode wires created and held between crimp tubes at each end with proximal end tube connected to conductor.

17/26, TI/14 (Item 14 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
008808343
WPI Acc No: 1991-312355/199143

Body implantable porous electrode for e.g. pacemaker or tachycardia - has platinum wire compressed and bundled into serpentine configuration and retained within platinum screen

17/19/1 (Item 1 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
016411361 **Image available**
WPI Acc No: 2004-569273/200455
XRAM Acc No: C04-207893
XRPX Acc No: N04-450079

Method of making implantable multicontact electrode array for implantation in living tissue, involves defining pattern of marks on metal foil carrier at spacing and orientation using positioning tool

Patent Assignee: ADVANCED BIONICS CORP (ADBI-N)

Inventor: HARRISON W V; KUZMA J A; SMITH L A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6757970	B1	20040706	US 2000246625	P	20001107	200455 B
			US 2001408	A	20011102	

Priority Applications (No Type Date): US 2000246625 P 20001107; US 2001408 A 20011102

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6757970	B1	18	H05K-003/02	Provisional application US 2000246625

Abstract (Basic): US 6757970 B1

NOVELTY - Method of making implantable multicontact electrode array involves winding insulated wires ; positioning tube jacket around wires , defining pattern of marks on metal foil carrier at spacing and orientation using positioning tool, welding electrode contact, attaching wire distal end to electrode contact, forming metal carrier in tube, causing tubing to shrink, injecting liquid polymer into foil tube, curing liquid polymer, mechanically removing heat-shrinkable tubing, and removing metal foil using etching process.

DETAILED DESCRIPTION - Making implantable multicontact electrode array (10) comprises helically winding insulated wires to define a lumen, positioning tube jacket around the helically wound wires , defining pattern of marks on metal foil carrier at spacing and

orientation using positioning tool, welding electrode contact to **marked** locations on the metal foil carrier using positioning tool and relying on the location **marks** on the surface of the metal foil carrier, electrically and mechanically attaching the distal end of the wire to electrode contact, forming metal carrier into the tube with electrode contacts and wires residing on the inside of the foil tube, placing heat-shrinkable tubing over the foil tube, causing the heat-shrinkable tubing to shrink tightly around the outside of the foil tube, injecting liquid polymer into the inside of the foil tube to fill all gaps, allowing the liquid polymer to cure, mechanically removing the heat-shrinkable tubing, and removing the metal foil using etching process to expose a surface of the electrode contact. The electrode contact was held against the metal foil. The exposed surface of each electrode contact provides a distal electrode of the multicontact electrode array. The **distal electrodes are spaced and oriented using spacing tools and markings on metal foil**. Each wire has distal end. The tube jacket covers distal end of the insulated **wires**. The **marks are used to define a pattern of spaced-apart distal electrodes** to be included at a distal end of the multicontact electrode array.

USE - For making **implantable multicontact electrode array for implantation in living tissue**.

ADVANTAGE - The invention is more simplified than others known in the art. It provides more reliable construction and higher yields. It uses simple materials. It is easy to use, and allows a **ring type, partial ring, or pattern of radially placed small contacts to be assembled as part of the multicontact electrode**. It provides enhanced performance when used due to alignment between the lead wire (14) and contacts.

DESCRIPTION OF DRAWING(S) - The figure shows a perspective view of the multicontact electrode array with ring contacts.

Electrode array (10)

Ring contacts (12)

Lead wire (14)

pp; 18 DwgNo 1/15

Technology Focus:

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Methods: The method of causing heat shrinkable tubing to shrink tightly around the foil tube comprises applying heat to heat-shrinkable tubing. The method also comprises trimming the distal tip of the heat shrinkable tubing and foil tube after causing it to shrink tightly around the foil tube. The method of electrically and mechanically attaching a distal end to electrode contact comprises folding a portion of each metal contact over a distal tip of the wire, thus mechanically holding the distal tip of the wire, and welding the distal tip of the wire to the metal contact, thus electrically attaching the **wire** to the metal contact; or welding in a sandwich **configuration**, a distal end of the **wire** between two layers of soft metal foil.

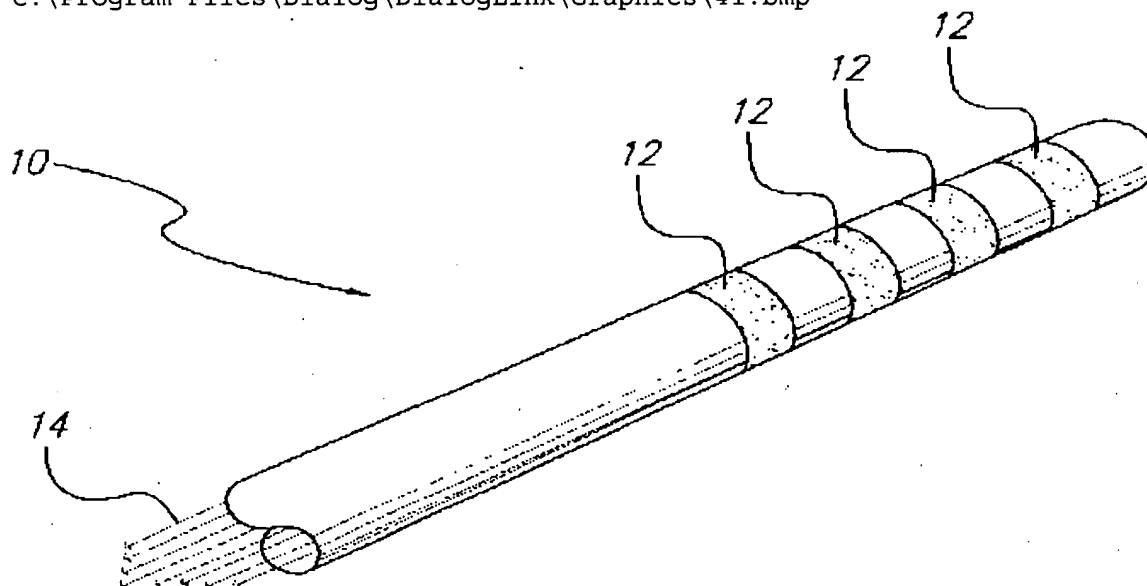
The method of removing the heat shrinkable tubing comprises mechanically cutting and peeling off the heat shrinkable tubing; or comprises chemically etching the metal foil away. The method of chemically etching away the metal foil comprises inserting metal foil tube into an acid mixture. The method also includes elevating the temperature of the acid mixture to less than or equal to its boiling point, placing a removable plug in the lumen defined by the helically wound wires prior to injecting the liquid polymer into the inside of the foil tube, extending the removable plug into the body of the foil

tube prior to injecting the liquid polymer into the inside of the foil tube to the remove plug when removed defines a lumen within that portion of the distal end of the electrode array where the electrodes reside, inserting the metal foil tube in the acid mixture for 1-5 minutes.

The welding of electrode contacts to the marked locations on the metal foil carrier comprises welding metal strips to the marked locations on the metal foil carrier. The forming the metal foil carrier into a foil tube with the electrode contacts and wires residing on the inside of the foil tube comprises drawing the metal foil carrier through a die. The defining a pattern of marks on the metal foil carrier comprises using a positioning tool to make marks on the metal foil carrier.

Preferred Components: The metal strips form segment(s) of a ring electrode once the metal foil carrier has been formed into the foil tube. The metal foil carrier are spaced apart at a distance causing the electrode contacts to be spaced-apart a distance, preferably 2 mm

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Derwent Class: L03; S05; V04

International Patent Class (Main): H05K-003/02

File Segment: CPI; EPI

Manual Codes (CPI/A-N): L03-A01A; L03-J

Manual Codes (EPI/S-X): S05-A02B; V04-R14

17/19/5 (Item 5 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014292203 **Image available**

WPI Acc No: 2002-112905/200215

Related WPI Acc No: 1999-243590; 2000-549094; 2001-006022; 2001-059585;

2001-059839; 2001-079380; 2001-090428; 2001-137534; 2001-137583;

2001-397237; 2002-009237; 2002-065412; 2002-224512; 2002-224774;

2004-095843

XRAM Acc No: C02-034658

XRPX Acc No: N02-084043

Electrode system for use with cochlear prosthesis, comprises electrode array which is located within an open channel between the front side of a

flexible positioner and front wall of a cavity within a human cochlea

Patent Assignee: ADVANCED BIONICS CORP (ADBI-N)

Inventor: BATTMER R; KUZMA J A; LENARZ T H R; MANN A E

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6309410	B1	20011030	US 98140034	A	19980826	200215 B
			US 98101942	P	19980925	
			US 99134290	P	19990514	
			US 99375425	A	19990817	

Priority Applications (No Type Date): US 99375425 A 19990817; US 98140034 A 19980826; US 98101942 P 19980925; US 99134290 P 19990514

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6309410	B1	16	A61N-001/05		CIP of application US 98140034 Provisional application US 98101942 Provisional application US 99134290 CIP of patent US 6038484

Abstract (Basic): US 6309410 B1

NOVELTY - An electrode **array** comprises flexible carrier having **wires** connected to electrode contacts (61). The electrode **array** is located within an open channel between the front side of a flexible positioner and the front wall of a cavity within a human cochlea, so that the contacts are positioned adjacent to the front wall of cavity. Drug is delivered into the cavity through channel (62) passing through the carrier or positioner.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

- (a) implantable flexible cochlear electrode array;
- (b) elongate flexible positioner;
- (c) a method of making an **implantable electrode array**; and
- (d) a method of inserting a short cochlear electrode array

USE - For use with implantable stimulation devices e.g. cochlear prosthesis used to electrically stimulate the auditory nerve.

ADVANTAGE - Short thin configuration of electrode array allows the electrode array to be inserted within section of scala tympani with minimal trauma, by simply penetrating the round window membrane that separates the inner ear from the middle ear. Drugs are delivered deep into the cochlear through the drug delivery channel passing through the flexible carrier.

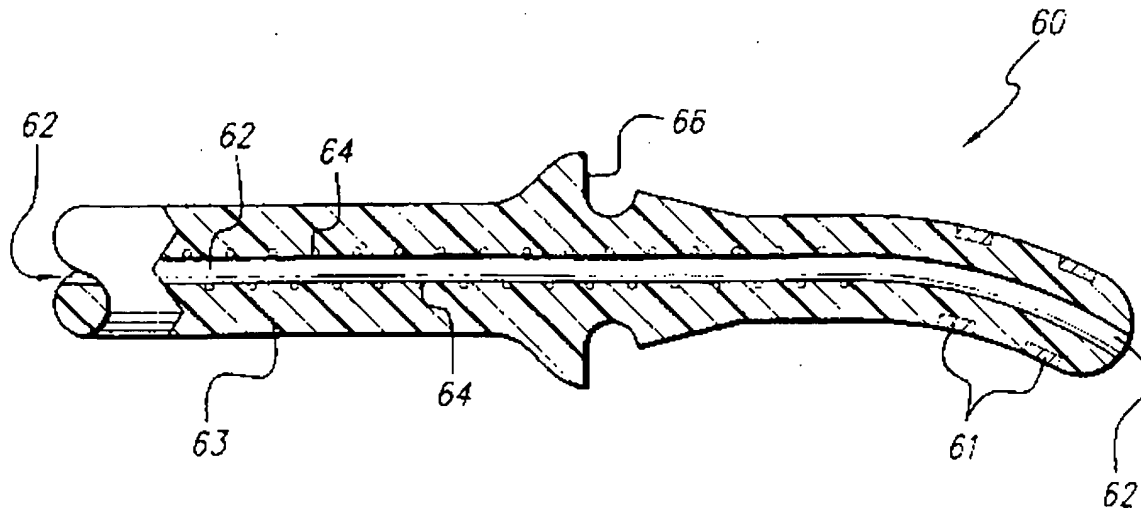
DESCRIPTION OF DRAWING(S) - The figure shows a sectional view of electrode array.

Electrode contacts (61)

Channel (62)

pp; 16 DwgNo 1/10

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Derwent Class: B07; P34; S05
 International Patent Class (Main): A61N-001/05
 File Segment: CPI; EPI; EngPI
 Manual Codes (CPI/A-N): B11-C04A; B14-J01; B14-N02
 Manual Codes (EPI/S-X): S05-A02B; S05-F01
 Chemical Fragment Codes (M6):
 01 M905 P450 P921 R046 R220 R430 R528

17/19/6 (Item 6 from file: 350)
 DIALOG(R) File 350:Derwent WPIX
 (c) 2004 Thomson Derwent. All rts. reserv.
 013913024 **Image available**
 WPI Acc No: 2001-397237/200142
 Related WPI Acc No: 1999-243590; 2000-549094; 2001-006022; 2001-059585;
 2001-059839; 2001-079380; 2001-090428; 2001-137534; 2001-137583;
 2002-009237; 2002-065412; 2002-112905
 XRPX Acc No: N01-292714

Cochlear electrode array for stimulating human cochlea, has several spaced apart electrodes provided on flexible carrier with cross-sectional area greater than the head formed at proximal end of carrier

Patent Assignee: ADVANCED BIONICS CORP (ADBI-N)
 Inventor: BALKANY T J; HARRISON W V; KUZMA J A
 Number of Countries: 023 Number of Patents: 003
 Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200069513	A1	20001123	WO 2000US13121	A	20000512	200142 B
AU 200048460	A	20001205	AU 200048460	A	20000512	200142
EP 1185332	A1	20020313	EP 2000930682	A	20000512	200225
			WO 2000US13121	A	20000512	

Priority Applications (No Type Date): US 99135217 P 19990521; US 99134290 P 19990514

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
WO 200069513	A1	E 25	A61N-001/05	
			Designated States (National): AU CA JP US	
			Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE	
AU 200048460	A		A61N-001/05	Based on patent WO 200069513
EP 1185332	A1	E	A61N-001/05	Based on patent WO 200069513

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI
LU MC NL PT SE

Abstract (Basic): WO 200069513 A1

NOVELTY - Head (18) formed at proximal end of flexible carrier (12), has cross-sectional area greater than carrier. Flexible flaps (16) are attached to carrier near its proximal end and slope towards head. Wire contacts passing through head has cable attached to proximal end of cochlear **electrode array** (10). The cable and **wire** contacts make electrical contact with each of spaced-apart electrodes (14) on carrier.

DETAILED DESCRIPTION - The flexible carrier has length lesser than about 8 mm and has pancake-shaped cross-sectional area with opposing flat surfaces. The thickness of the carrier between the flat surfaces is lesser than the width of the flat surfaces. Wire contacts are embedded within the flexible carrier. A shoulder is formed at the transition from the flexible carrier to the head. INDEPENDENT CLAIMS are also included for the following:

- (a) cochlear electrode array inserting method;
- (b) cochlear electrode;
- (c) method for using cochlear electrode

USE - Implanted in basal end of scala tympani duct of human cochlea to stimulate human cochlea.

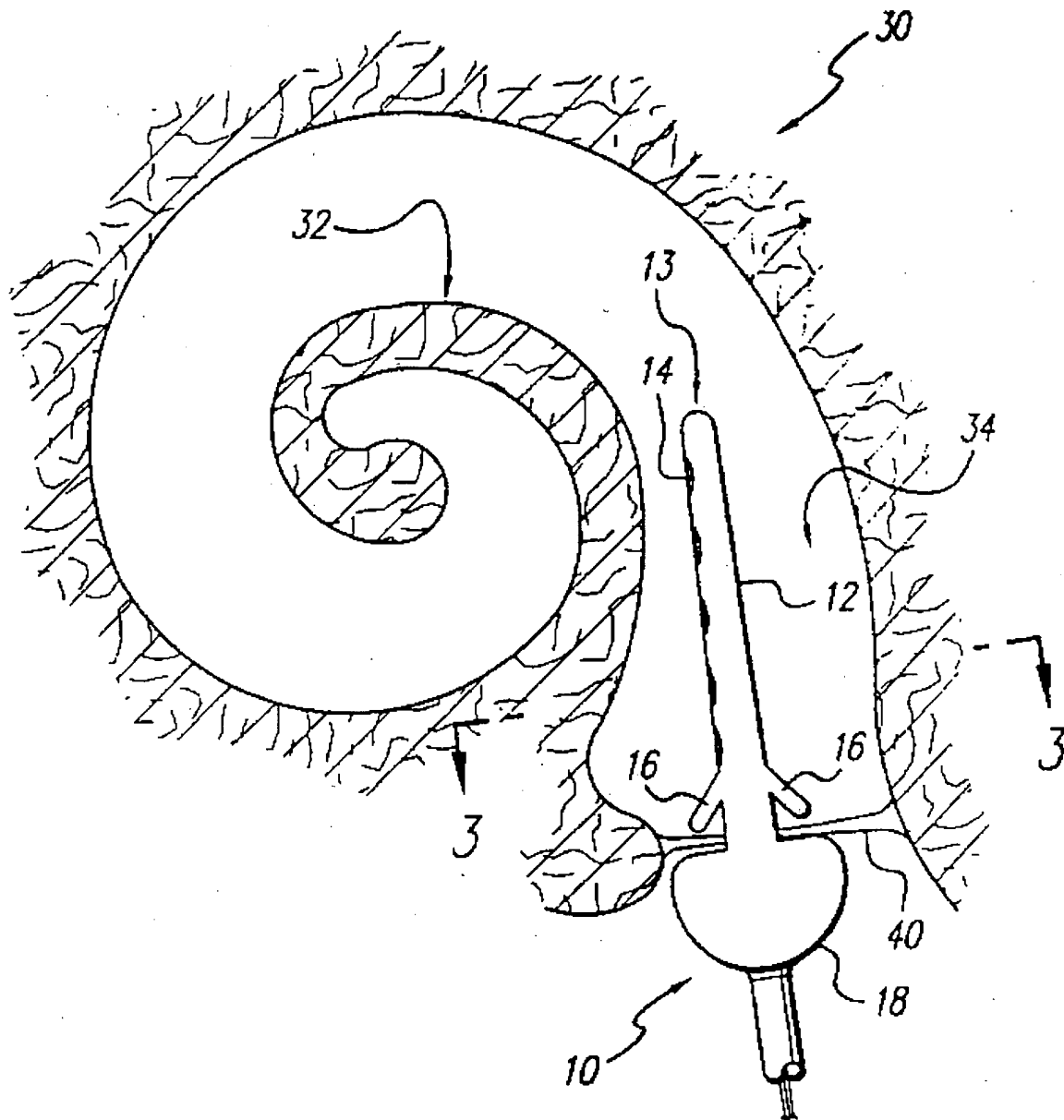
ADVANTAGE - Once the ball electrode is inserted into the cochlea, the round window membrane closes tightly around the thin, flexible wire, thereby holding the ball electrode in place on the inside of the membrane, while minimizing any leak of fluid from the cochlea, and also allows normal hearing processes to occur in regions other than the basal end of the cochlea. The electrical stimulator is controlled in an appropriate manner to provide electrical current stimulation through the ball electrode to the tissue at the basal end of the cochlea, thereby compensates for high frequency hearing loss and/or suppresses tinnitus. **Implants** ball **electrode** through the round window membrane of the cochlea that is minimally invasive, thereby avoids or at least significantly minimizes any adverse reaction to the implant such as tissue formation or new bone formation that adversely affects residual hearing function in the implanted ear.

DESCRIPTION OF DRAWING(S) - The figure shows the placement of the electrode array into the basal end of the scala tympani duct of human cochlea.

Cochlear electrode array (10)
Flexible carrier (12)
Electrodes (14)
Flexible flaps (16)
Head (18)

pp; 25 DwgNo 2/10

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Derwent Class: P34; S05; W04
 International Patent Class (Main): A61N-001/05
 File Segment: EPI; EngPI
 Manual Codes (EPI/S-X): S05-A02B; S05-F01; W04-Y02; W04-Y05C

17/19/7 (Item 7 from file: 350)
 DIALOG(R)File 350:Derwent WPIX
 (c) 2004 Thomson Derwent. All rts. reserv.
 013575378 **Image available**
 WPI Acc No: 2001-059585/200107
 Related WPI Acc No: 1999-243590; 2000-549094; 2001-006022; 2001-059839;
 2001-079380; 2001-090428; 2001-137534; 2001-137583; 2001-397237;
 2002-009237; 2002-065412; 2002-112905; 2002-224512; 2002-224774;
 2004-095843
 XRPX Acc No: N01-044469
 Cochlear electrode array with contacts on medial side has electrode array

with the array contacts equally spaced along the flexible carrier with wire bundles attached to the electrode contacts

Patent Assignee: ADVANCED BIONICS CORP (ADBI-N)

Inventor: KUZMA J A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6129753	A	20001010	US 9879676	P	19980327	200107 B
			US 9887655	P	19980602	
			US 98140034	A	19980826	
			US 99247734	A	19990209	

Priority Applications (No Type Date): US 99247734 A 19990209; US 9879676 P 19980327; US 9887655 P 19980602; US 98140034 A 19980826

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6129753	A	21	A61N-001/05	Provisional application US 9879676
				Provisional application US 9887655
				CIP of application US 98140034
				CIP of patent US 6038484

Abstract (Basic): US 6129753 A

NOVELTY - The cochlear electrode comprises electrode array (30) array contacts (32) equally spaced along the flexible carrier (36), positioned along the inside of the carrier. The reference marker contacts (34) are identified as electrodes (17,18,19) spaced from active electrode a distance (L11). The proximal end has fantail connector funnels down to a lead body (44). At least wire from one of the bundles (202,203) attaches to electrode contacts (2-16).

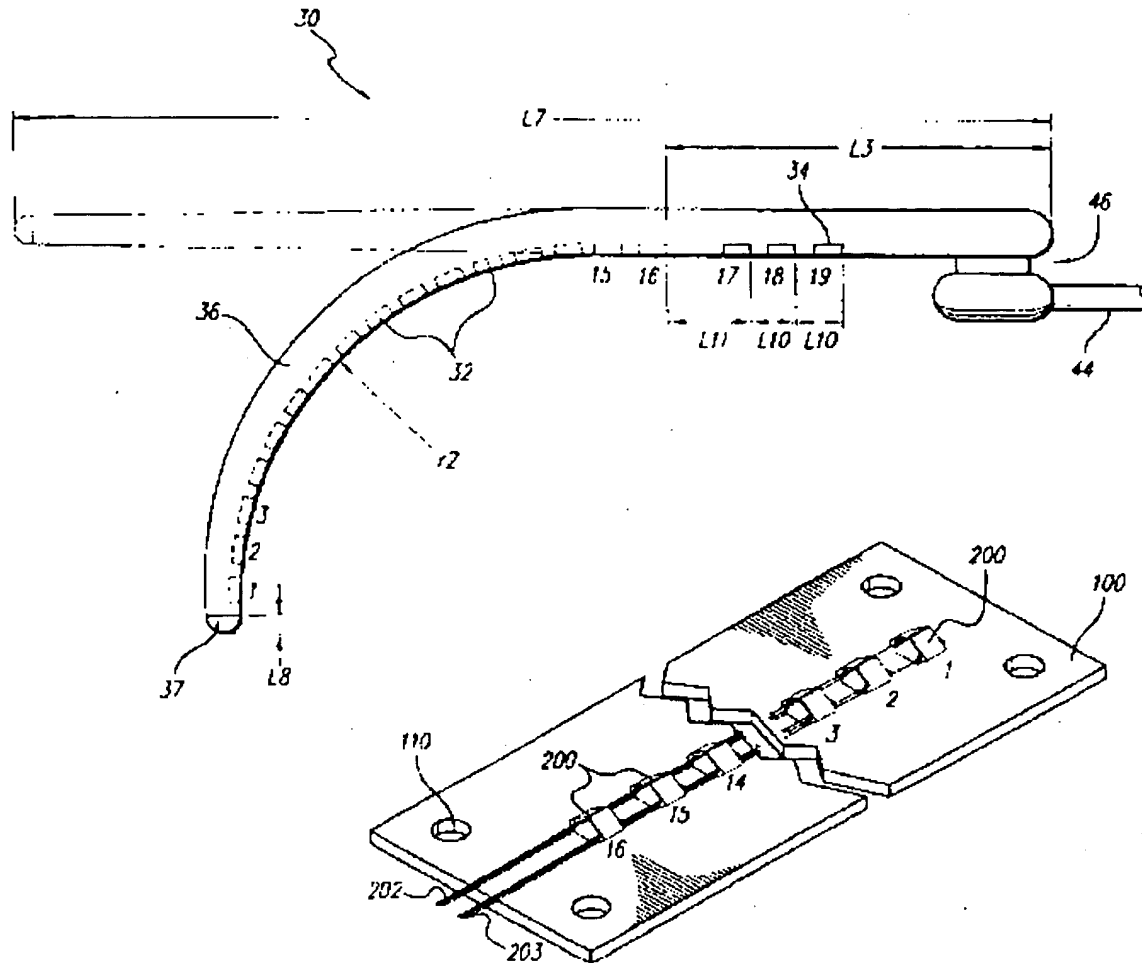
USE - For use in insertion into a cochlea with an **implant electrode** array.

ADVANTAGE - The electrode upon entering the cochlea makes it easier to bend in the medial direction than in a sideways or lateral direction. The electrode contacts remain on the medial side of the electrode, with the side remaining closest to the modulus wall when the electrode is inserted.

DESCRIPTION OF DRAWING(S) - Figures schematic view of the electrode array and illustrated view of the wires .

Distance (L11)
Electrode contacts (2-16)
Electrodes (17,18,19)
Electrode array (30)
Array contacts (32)
Reference marker contacts (34)
Flexible carrier (36)
Lead body (44)
Wire bundles (202,203)
pp; 21 DwgNo 4,8a/11

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Derwent Class: P34; S05; W04
 International Patent Class (Main): A61N-001/05
 File Segment: EPI; EngPI
 Manual Codes (EPI/S-X): S05-F01; W04-Y

17/19/9 (Item 9 from file: 350)
 DIALOG(R) File 350:Derwent WPIX
 (c) 2004 Thomson Derwent. All rts. reserv.
 011008256 **Image available**
 WPI Acc No: 1996-505206/199650
 XRAM Acc No: C96-158407
 XRPX Acc No: N96-425787

Simple, reliable, inexpensive and easily installed multichannel stimulation system for cochlea - has array of implantable micro-stimulators bound by biocompatible material and each electrically connected to two or more implanted electrodes.

Patent Assignee: LOEB G E (LOEB-I); SCHULMAN J H (SCHU-I)

Inventor: LOEB G E; SCHULMAN J H

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5571148	A	19961105	US 94288289	A	19940810	199650 B

Priority Applications (No Type Date): US 94288289 A 19940810
 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 5571148 A 24 A61N-001/36

Abstract (Basic): US 5571148 A

A multichannel stimulation system has an array of implantable micro-stimulators (20a - 20e) each electrically connected to two or more **implanted electrodes** (36). The micro-stimulators are bound together by a biocompatible material to form the array. In different aspects: 1. The material is a non-conductive plastics. An external control circuit generates a power signal and an information signal and sends it to a stimulation circuitry which extracts power from the power signal to drive the circuitry, demodulates the information signal and has an output circuit. The output circuit derives a stimulation pulse from the power signal and applies it to the electrodes when the information signal contains prescribed codes. 2 The material is impervious to body fluids. The electrode **array** has electrode contacts (38a - 38e) each with an associated **wire** conductor which is insulated from the other wire conductors. Each micro-stimulator has two output terminals for connecting to two of the electrodes. A stimulation pulse is applied between the electrodes of each micro-stimulator in a controlled manner.

A method of stimulating multiple channels of an array generally as in 1 above.

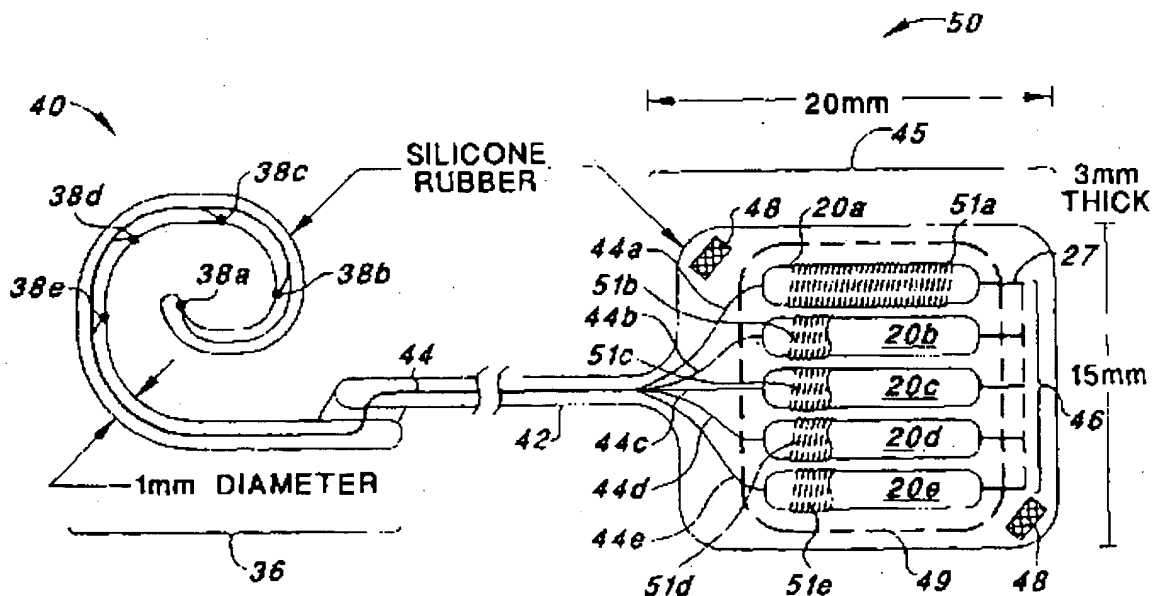
A further stimulation method is claimed.

USE - A multichannel stimulation system for the cochlea

ADVANTAGE - The system is simple, reliable, inexpensive and easy to install

Dwg. 2A/10

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Derwent Class: A85; A96; P34; S05; W04

International Patent Class (Main): A61N-001/36

International Patent Class (Additional): H04R-025/00

File Segment: CPI; EPI; EngPI

Manual Codes (CPI/A-N): A12-V02

Manual Codes (EPI/S-X): S05-F01; W04-Y02; W04-Y03; W04-Y05C

Polymer Indexing (PS):

<01>

001 018; P1445-R F81 Si 4A; H0124-R

002 018; ND01; Q9999 Q8048 Q7987; Q9999 Q7501; B9999 B3270 B3190; B9999 B4035 B3930 B3838 B3747; B9999 B4579 B4568; K9416; B9999 B5243-R B4740

17/19/13 (Item 13 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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009620330 **Image available**

WPI Acc No: 1993-313879/199340

Related WPI Acc No: 1991-104243

XRFX Acc No: N93-241721

Implantable defibrillation electrode - has surface of predetermined area having number of conductive edges arranged in patterns to focus or control discharge and to increase amount of edge effect to smooth and direct current distribution

Patent Assignee: MIROWSKI M (MIRO-I)

Inventor: DAHL R W; HEIL R W

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2265551	A	19931006	GB 9020914	A	19900926	199340 B
			GB 9311914	A	19930609	

Priority Applications (No Type Date): US 89416421 A 19891003

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
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GB 2265551	A	21	A61N-001/05	Derived from application GB 9020914
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Abstract (Basic): GB 2265551 A

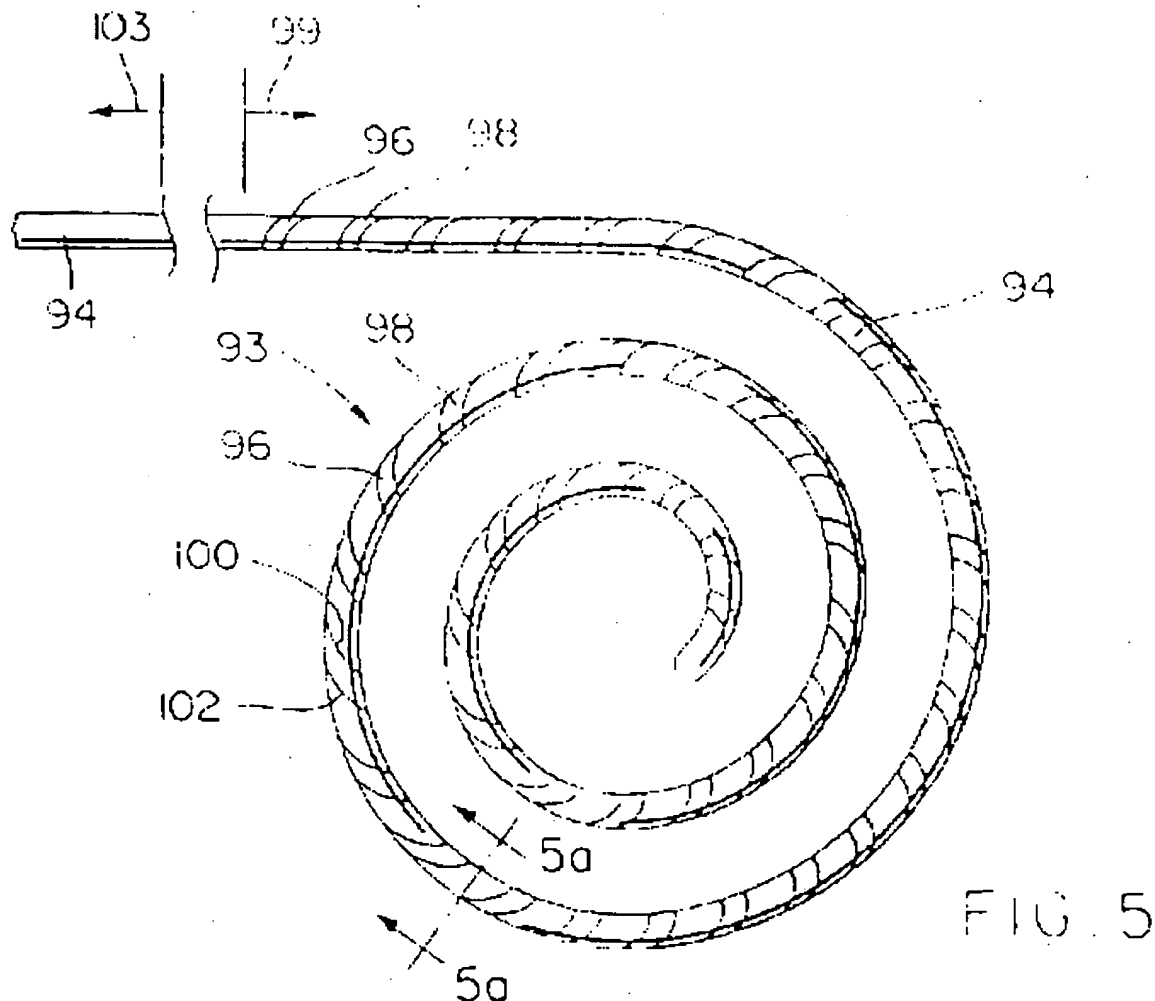
The **defibrillation electrode** comprises electrically conductive elements spaced apart and electrically connected together to increase the number of discharging edges on the electrode. The electrode may comprise interconnected **concentric conductive rings**, or conductive planar elements electrically connected together in a generally puzzle-like **configuration**, or electrically conductive **wires** concentrically spiralled into a spiral patch **configuration**.

The electrode may comprise electrically conductive wires wrapped around the length of a cardiac catheter or electrically isolated active sites provided on the distal portion of an endocardial catheter. The discharge of energy from the electrode to the heart surface favours the conductive edges of the electrodes.

USE/ADVANTAGE - Implantable cardiac cardioversion/defibrillation electrode. Conductive edges provide uniform distribution of energy to the heart. Each electrode configuration may be constructed without insulative backing which further increases the efficiency of discharge. Increased efficiency of energy delivery to heart.

Dwg.5/7

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Derwent Class: P34; S05
 International Patent Class (Main): A61N-001/05
 File Segment: EPI; EngPI
 Manual Codes (EPI/S-X): S05-A02

17/19/15 (Item 15 from file: 350)
 DIALOG(R) File 350:Derwent WPIX
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 008600211 **Image available**
 WPI Acc No: 1991-104243/199115
 Related WPI Acc No: 1993-313879
 XRPX Acc No: N91-080534

Controlled implantable discharge defibrillation electrode - has
 conductive elements spaced apart and electrically connected together to
 increase number of discharging edges on electrode

Patent Assignee: MIROWSKI A (MIRO-I); MIROWSKI M (MIRO-I); DAHL R W
 (DAHL-I); MIECZYSLAW MIROWSKI (MIEC-N)

Inventor: DAHL R W; HEIL R W

Number of Countries: 009 Number of Patents: 015

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2236484	A	19910410	GB 9020914	A	19900926	199115 B
DE 4030642	A	19910418	DE 4030642	A	19900927	199117

NL 9002142	A	19910501			199121
AU 9063260	A	19910426			199124
CA 2026853	A	19910404			199125
FR 2652505	A	19910405			199126
JP 3133467	A	19910606	JP 90266190	A	19901003 199129
US 5063932	A	19911112	US 89416421	A	19891003 199148
AU 643458	B	19931118	AU 9063260	A	19900926 199402
GB 2236484	B	19940119	GB 9020914	A	19900926 199403
GB 2265551	B	19940119	GB 9311914	A	19930609 199403
IT 1241713	B	19940131	IT 9067751	A	19901002 199429
DE 4030642	C2	19950928	DE 4030642	A	19900927 199543
CA 2026853	C	19980818	CA 2026853	A	19901003 199844
NL 195035	C	20030625	NL 902142	A	19901002 200366

Priority Applications (No Type Date): US 89416421 A 19891003

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
AU 643458	B			A61N-001/05	Previous Publ. patent AU 9063260
GB 2236484	B		2	A61N-001/05	
GB 2265551	B		2	A61N-001/05	
IT 1241713	B			A61N-000/00	
DE 4030642	C2		8	A61N-001/05	
CA 2026853	C			A61N-001/05	
NL 195035	C			A61B-005/0408	

Abstract (Basic): GB 2236484 A

The defibrillation electrode comprises electrically conductive elements spaced apart and electrically connected together to increase the number of discharging edges on the electrode. The electrode may comprise interconnected concentric conductive rings, or conductive planar elements electrically connected together in a generally puzzle-like **configuration**, or electrically conductive **wires** concentrically spiralled into a spiral patch **configuration**.

Alternatively the electrode may comprise electrically conductive wires wrapped around the length of a cardiac catheter or electrically isolated active sites provided on the distal portion of an endocardial catheter. The discharge of energy from the electrode to the heart surface favours the conductive edges of the electrodes.

USE/ADVANTAGE - Implantable cardiac cardioversion/defibrillation electrode. By increasing the number of conductive edges, a more uniform distribution of energy is delivered to the heart. Each electrode configuration may be constructed without an insulative backing which further increases the efficiency of discharge. Increased efficiency of energy delivery to heart. (21pp Dwg.No.1/8

Abstract (Equivalent): DE 4030642 C

An **electrode** for **implantation** on or around the heart, can be connected to a defibrillation/cardiovascular system, and includes numerous electrically conducting segments which deliver energy directly to the heart, and an intermediate insulation layer. The segments have a planar surface and are electrically connected. The surfaces are coplanar and the insulation forms a planar discharge surface region with the segment surfaces. The insulation borders against the planar surface regions and forms numerous edge sections, which ensure a good discharge energy distributor.

ADVANTAGE - The electrode is effective and does not damage tissue.
Dwg.0/6

Abstract (Equivalent): GB 2265551 B

An **electrode** for **implantation** in, on or about the heart for

connection to a defibrillation/cardioversion system, said electrode comprising:

- an elongated cardiac catheter having a distal active portion and a proximal lead portion;

- a discharge surface region positioned along substantially the entire length of said distal active portion for delivering energy to the heart;

- a plurality of electrically conductive wires or ribbons in said discharge surface region, said wires or ribbons being spaced apart, attached to, and wound around the periphery along the length of the distal active portion of said catheter, said wires or ribbons being electrically connected together for electrical connection to said defibrillation/-cardioversion system.

Dwg.1/2

GB 2236484 B

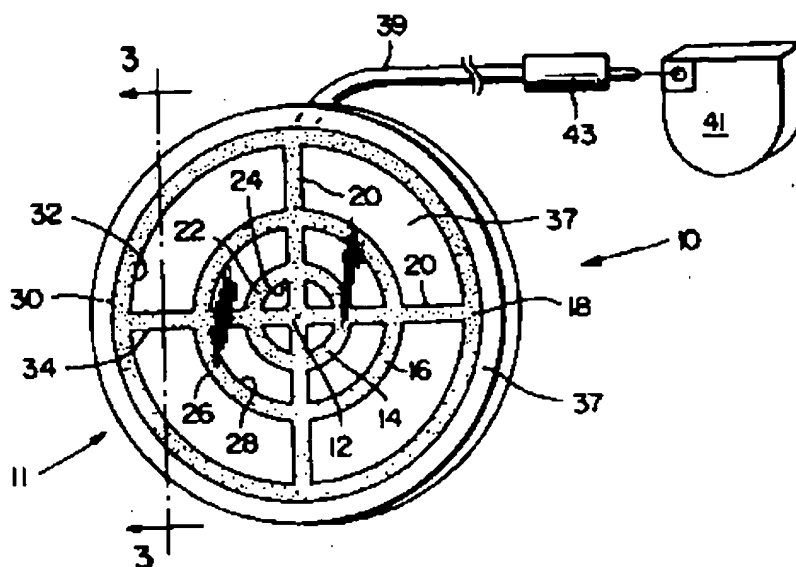
An **electrode** for **implantation** on or about the heart for connection to a defibrillation/cardioversion system, said electrode comprising: a discharge surface region having a predetermined surface area for delivering energy to the heart, said discharge surface region being a planar surface and consisting of a plurality of electrically conductive segments carried by an insulation element in one surface of which the conductive segments are embedded and which covers the surface of said electrode opposite said discharge surface region, said conductive segments having a plurality of electrically conductive edges separated by the material of the insulation element in which they are embedded and being arranged in said discharge surface region so that conductive edges of adjacent conductive segments do not overlap for maintaining a gap between conductive edges and forcing electrical discharge at said conductive edges to control the electrical discharge across said discharge surface region, all said conductive segments being electrically in common and adapted to be connected to said defibrillation/cardioversion system.

Abstract (Equivalent): US 5063932 A

The electrode comprises electrically conductive elements spaced apart and electrically connected together, thus increasing the number of discharging edges on the electrode. The electrode pref. comprises concentric conductive rings electrically connected together or conductive planar elements electrically connected together in a puzzle-like **configuration**. The electrode can comprise electrically conductive **wires** wrapped around the length of a cardiac catheter. Electrically conductive **wires** may be concentrically spiralled into a spiral patch **configuration** or electrically isolated active sites are provided on the distal portion of an endocardial catheter. The electrical discharge of energy from the electrode to the heart surface in each case favours the conductive edges of the electrically conductive and connected components of the electrodes.

USE - Defibrillation **electrode** for **implantation** on or about the heart and for connection to a defibrillation system. (8pp)

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Derwent Class: P31; P34; S05
 International Patent Class (Main): A61B-005/0408; A61N-000/00; A61N-001/05
 International Patent Class (Additional): A61B-005/04; A61M-025/00;
 A61N-001/38; A61N-001/39
 File Segment: EPI; EngPI
 Manual Codes (EPI/S-X): S05-A01

17/19/16 (Item 16 from file: 350)
 DIALOG(R)File 350:Derwent WPIX
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 007117263
 WPI Acc No: 1987-117260/198717
 XRPX Acc No: N87-087879

Implanted electrode for defibrillator - comprises thin metal disc with overlapping, semicircular, concentric slits

Patent Assignee: TELETRONICS NV (TELE-N)
 Inventor: HOLLEY L K; MILIJASEV Z; SKALSKY M; MILIJASEVIC Z
 Number of Countries: 006 Number of Patents: 008
 Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 3633803	A	19870423	DE 3633803	A	19860930	198717 B
GB 2182566	A	19870520	GB 8623607	A	19861001	198720
FR 2588758	A	19870424				198722
GB 2182566	B	19891101				198944
US 4938231	A	19900703	US 88274669	A	19881121	199029
IT 1198052	B	19881221				199114
CA 1290025	C	19911001				199146
DE 3633803	C2	19951019	DE 3633803	A	19860930	199546

Priority Applications (No Type Date): US 85790166 A 19851022; US 88274669 A 19881121

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
DE 3633803	A	15		
DE 3633803	C2	8	A61N-001/05	

Abstract (Basic): DE 3633803 A

The defibrillator electrode (30) comprises a flat, circular, thin

metal disc (20) with a lower surface in contact with the heart tissue. The disc is made of a biologically compatible metal netting e.g titanium, platinum or stainless steel. **A pattern of overlapping concentric semi-circular slits (30) is stamped out of the disc.**

The slits are arranged symmetrically about an axis (36) and a connecting wire is attached to the centre (60) of the disc. The pattern, which resembles that of a Japanese lantern, enables vertical or tilting flexing of the electrode. The electrode is covered with a porous, non-conducting coating for the prevention of thrombus formation.

ADVANTAGE - The electrode is flexible and adjusts to three dimensional surface movements of heart tissue to maintain continuous electrical contact.

3A/4

Abstract (Equivalent): GB 2182566 B

An apparatus for use as an electrode adapted for implantation in a patient comprising: a tissue-contacting member including a sheet of electrically conductive, flexible material having a generally unflexed planar shape, and at least one elongated slit forming a pattern in said sheet, a part of at least one interior portion of said sheet defined by said pattern being flexibly movable in a direction perpendicular to the plane of said sheet past other sheet portions formed by said slit pattern, said tissue-contacting member being conformable to tissue having a three-dimensional, time-varying surface topography.i

Abstract (Equivalent): US 4938231 A

The patch-type defibrillator electrode for direct contact with the heart has a thin, flat, flexible, circular mesh or foil conductive member with a pattern of slits for enabling continuous contact with the three dimensional, time-varying heart surface topography. The slit pattern includes two pairs of non-intersecting semicircular slits oriented along mutually perpendicular axes, and interior portions of the conductive member are flexibly movable in a direction normal to the plane member and are flexibly tiltable about the axes to provide the conforming contacts. The slits may also be radial slits which do not meet at the centre so the leaves of conductive members are independently mobile with respect to every other lead.

A Dacron envelope having a thrombus formation inhibiting agent surrounds the conductive member including the peripheral edges to reduce the risk of tissue burning from current supplied to the centre of the conductive member by an electrode lead.

USE - For attaching directly to surface of heart muscle, or over pericardial tissue.

Derwent Class: P31; P34; S05

International Patent Class (Additional): A61B-005/04; A61L-015/03;
A61N-001/05

File Segment: EPI; EngPI

Manual Codes (EPI/S-X): S05-A01; S05-A02

17/19/17 (Item 17 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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004551495

WPI Acc No: 1986-054839/198608

XRPX Acc No: N86-040145

Implantable ventricular defibrillator electrode - has conductive foilised flat strips extending transversely and secured to opposite

points on spring wire loop in criss-cross pattern

Patent Assignee: MOORE J P (MOOR-I)

Inventor: MOORE J P

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 4567900	A	19860204	US 84617017	A	19840604	198608 B

Priority Applications (No Type Date): US 84617017 A 19840604

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 4567900	A	4		

Abstract (Basic): US 4567900 A

A spring wire loop (11) extends integrally from a bifurcated guide wire (12). The loop is preformed to retain its loop **configuration** after deformation by compression. A multiplicity of conductive foiled flat strips (13) extend transversely between and are conductively secured to opposite disposed points on the loop in a **crisscross pattern**. The flat strips may be made from any one of a variety of materials having the desired thickness, flexibility and conductive nature required.

An insulated wire lead (14) extends from a portion of the guide wire adjacent the spring wire loop. The lead supplies current during pulse discharge from the defibrillator at the onset of an episode of ventricular fibrillation or hemodynamically unstable ventricular tachycardia occurrences.

ADVANTAGE - May be placed onto epicardial surface of heart without need of general anaesthetic, so minimising risk to patient. (4pp Dwg No. 6/6

Index Terms/Additional Words: HEART; PACE

Derwent Class: P34; S05

International Patent Class (Additional): A61N-001/04

File Segment: EPI; EngPI

Manual Codes (EPI/S-X): S05-A01; S05-A02

21/7/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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010239106 **Image available**

WPI Acc No: 1995-140361/199519

Implanted heart electrode - has surgical thread between surgical needle for penetrating heart tissue and insulation-free distal end of heart wire

Patent Assignee: ASCH A (ASCH-I)

Inventor: ASCH A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 4402058	C1	19950413	DE 4402058	A	19940125	199519 B

Priority Applications (No Type Date): DE 4402058 A 19940125

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
DE 4402058	C1	7	A61B-005/0408	

Abstract (Basic): DE 4402058 C

The electrode has a curved surgical needle (32) for implantation of the insulation-free distal end of the heart wire (24) in the heart tissue, with a non-conductive, non-reabsorbable surgical thread (28) between the surgical needle and the distal end of the heart wire. The

heart wire is completely insulated from a point shortly behind the distal end to the proximal end lying outside the body, the insulation-free end penetrating the heart tissue by about 10 mm in the correct implantation position.

Pref. the surgical **thread** and the distal end of the insulation are provided with **markings** allowing the penetration depth to be checked, the thickness of the heart wire being reduced at the distal end.

ADVANTAGE - Secure fixing of electrode in contact with heart tissue preventing movement during further treatment. Dwg.1/4

Derwent Class: P31; P34; S05

International Patent Class (Main): A61B-005/0408

International Patent Class (Additional): A61B-017/04 ; A61N-001/05

24/19/2 (Item 2 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014126863 **Image available**

WPI Acc No: 2001-611073/200170

XRAM Acc No: C01-182439

XRPX Acc No: N01-456178

Areal implant with a flexible polymer-based basic structure and with X-ray-visible element, useful for judging the position of the implant in the patient at any time by means of an X-ray procedure

Patent Assignee: ETHICON GMBH & CO KG (ETHI); PRIEWE J (PRIE-I);

SCHULDT-HEMPE B (SCHU-I); WALTHER C (WALT-I)

Inventor: PRIEWE J; SCHULDT-HEMPE B; WALTHER C

Number of Countries: 021 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200156499	A1	20010809	WO 2001EP122	A	20010108	200170 B
DE 10004832	A1	20010816	DE 1004832	A	20000131	200170
EP 1251794	A1	20021030	EP 2001900394	A	20010108	200279
			WO 2001EP122	A	20010108	
US 20030010929	A1	20030116	WO 2001EP122	A	20010108	200308
			US 2002182933	A	20020731	

Priority Applications (No Type Date): DE 1004832 A 20000131

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200156499 A1 E 27 A61F-002/00

Designated States (National): US

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

DE 10004832 A1 A61L-027/50

EP 1251794 A1 E A61F-002/00 Based on patent WO 200156499

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

US 20030010929 A1 G21K-005/10

Abstract (Basic): WO 200156499 A1

NOVELTY - Areal implant with a flexible polymer-based basic structure (10) and with X-ray-visible element (12).

USE - The X-ray visible elements can be arranged in an areal **pattern** in order to be able to judge the position of the implant in the patient at any time by means of an X-ray procedure.

ADVANTAGE - The areal implant is safe and economical.

DESCRIPTION OF DRAWING(S) - Figure 1 shows a top view of the implant which has clips made from titanium as X-ray-visible elements.

Flexible polymer structure (10)

X-ray-visible element (12)

pp; 27 DwgNo 1/4

Technology Focus:

TECHNOLOGY FOCUS - POLYMERS - Preferred Implant: The X-ray-visible elements (12) are arranged in an areal **pattern**. The basic structure (10) includes non-resorbable-polymer, preferably has one of the forms chosen from the following group: meshes, tapes,, foils, perforated foils. At least part of the X-ray-visible elements is formed as pre-shaped bodies (12) of respective length, width and height in the range of 0.1 - 50 mm, the pre-shaped bodies (12) being attached to the basic structure (10). At least one pre-shaped body comprises a mixture of at least one X-ray-visible substance with a binding agent, preferably a non- or slowly resorbable polymer and/or a wax. At least one pre-shaped body (12) has one of the shapes chosen from the following group: beads, balls, small tubes, rods, small plates, rings, discs, bones, clips. Preferably pre-shaped body (22) has a coating and/or outer layer made from non-resorbable material, and is attached to the basic structure or a holding device connected to the basic structure by knotting, compression, welding and/or gluing. The X-ray-visible elements comprises a polymer tube or a cord which is filled at least partly with particles of a size of at most 2.5 mm. made from an X-ray-visible substance. The X-ray-visible substance is additionally fixed in the polymer tube or the cord, preferably by thermal shrinking and/or gluing. The X-ray-visible substance of the polymer comprises zirconium dioxide, preferably barium sulfate and this polymer is additionally coated with a non-resorbable polymer or wax. At least part of the X-ray-visible elements comprises an X-ray-visible metal **thread**. At least part of the X-ray-visible elements comprises an X-ray-visible symbol, which is preferably provided repeatedly and at equal intervals. The symbol is designed in one of the forms chosen from the following group: sewn from X-ray-visible **threads**, stitched from X-ray-visible **threads**, embossed from X-ray-visible foil, put together from X-ray-visible objects, put together from X-ray-visible powder. The implant contains at least one of the substances chosen from: polyalkene, polypropylene, polyethylene, fluorinated polyolefins, polytetrafluoroethylene, polyvinylidene fluoride, polyamides, polyurethanes, polyisoprene, polystyrenes, poly silicones, polycarbonates, polyaryletherketones, polymethacrylates, polyacrylates, aromatic polyesters, polyimides, copolymers of polymerizable substances. The basic structure has a proportion of resorbable polymer, which preferably contains at least one of the substances chosen from the following group: polyhydroxy acids, polylactides, polyglycolides, polyhydroxybutyrates. polyhydroxyvalerates, polycaprolactones, polydioxatones, synthetic and natural oligo- and poly aminoacids, polyphosphazenes, polyanhydrides, polyorthoesters, polyphosphates, polyphosphonates, polyalcohols, polysaccharides, polyethers, resorbable glasses, copolymers of polymerizable substances.

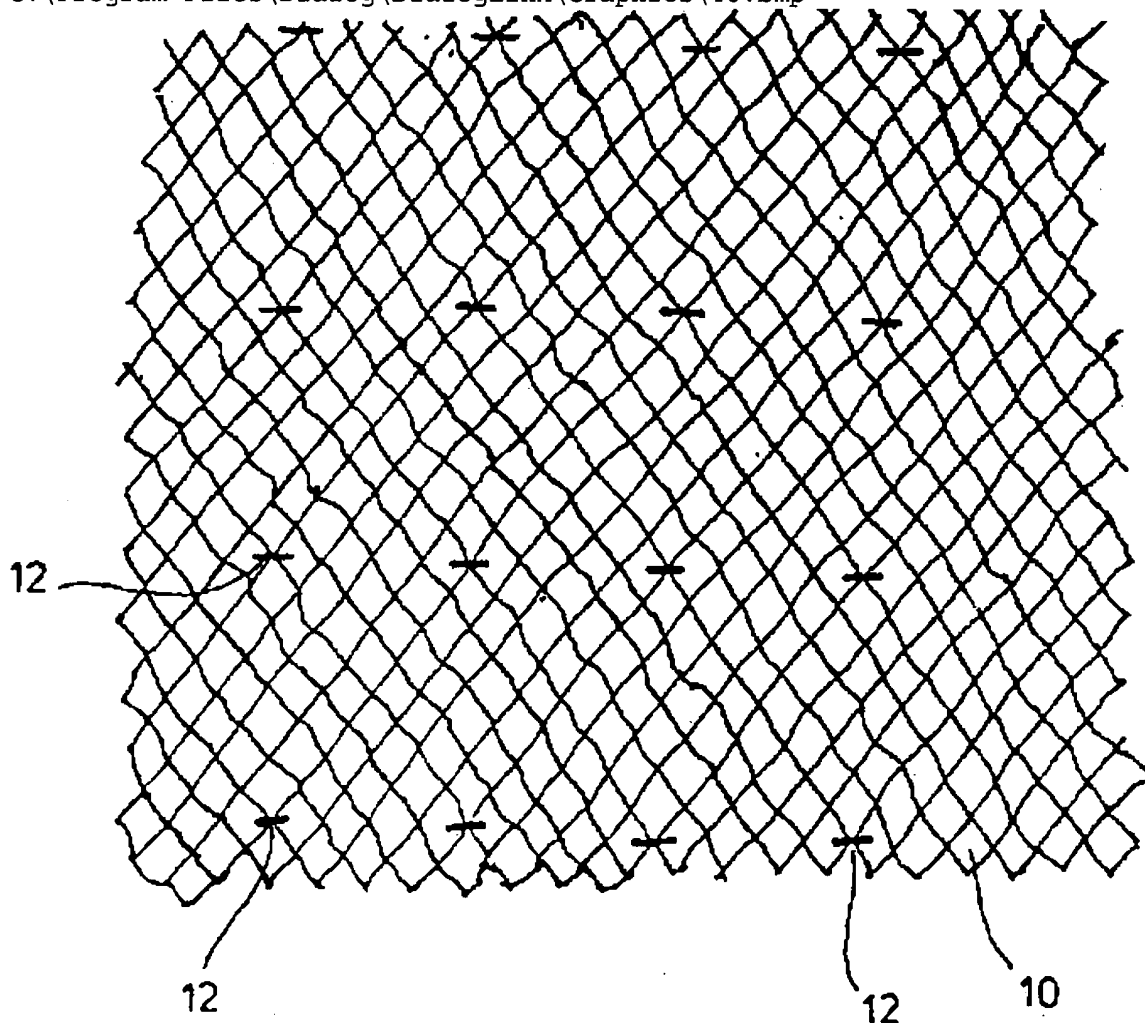
INORGANIC CHEMISTRY - Preferred Implant: The X-ray-visible elements (12) have at least one of the X-ray-visible substances chosen from the following group: pure zirconium dioxide, stabilized zirconium dioxide, zirconium nitride, zirconium carbide. tantalum, tantalum pentoxide, barium sulfate, silver, silver iodide, gold, platinum, palladium, iridium, copper, ferric oxides, not very magnetic implant steels, non-magnetic implant steels, titanium, alkali iodides, iodated aromatics, iodated aliphatics, iodated oligomers, iodated polymers,

alloys of substances capable of being alloyed. Implant is also detectable by means of ultrasound and/or magnetic resonance tomography

Extension Abstract:

EXAMPLE - Manufacture of an X-ray-visible, fine and coarse-pored polypropylene mesh with clips made from titanium. A partly-resorbable **implant mesh** Vypro (RTM), was boiled in a 10% soda solution, rinsed with water and air-dried in order to remove the resorbable part. Clips made from titanium LIGACLIP Extra, small (RTM) were attached to the resulting fine, but coarse-pored polypropylene mesh, on the intersection points of every seventh and eighth wale using the associated applicator. Figure 1 shows the basic structure 10 in the form of the polypropylene mesh as well as the clips designated by (12). The implant made in this way was placed under a (10) cm-thick gel cushion for sonography, in order to have an absorption comparable to the in-vivo-situation, and X-rayed (focus-film distance: 1m, exposure 5212.5). The X-ray-visible elements in the form of clips (12) were clearly visible in the X-ray image. They could not be separated from the mesh by gentle manual pulling.

C:\Program Files\Dialog\DialogLink\Graphics\48.bmp



Derwent Class: A96; D22; P32

International Patent Class (Main): A61F-002/00 ; A61L-027/50; G21K-005/10

International Patent Class (Additional): A61F-002/02 ; A61L-027/00;

A61L-027/16; A61L-027/30; G01N-021/00

File Segment: CPI; EngPI

Manual Codes (CPI/A-N): A08-M10; A12-V02; D09-C; D09-C01

Polymer Indexing (PS):

<01>

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- *002* 018; R00964 G0044 G0033 G0022 D01 D02 D12 D10 D51 D53 D58 D83; H0000; S9999 S1650 S1649; S9999 S1558; S9999 S1581; S9999 S1661; S9999 S1467 S1456; S9999 S1003; S9999 S1070-R; S9999 S1218 S1070; S9999 S1081 S1070; S9999 S1285-R; P1150 ; P1343
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- *008* 018; G0102-R G0022 D01 D12 D10 D18 D51 D53; R00708 G0102 G0022 D01 D02 D12 D10 D19 D18 D31 D51 D53 D58 D76 D88; H0000; H0011-R; S9999 S1650 S1649; S9999 S1558; S9999 S1581; S9999 S1661; S9999 S1467 S1456; S9999 S1003; S9999 S1070-R; S9999 S1218 S1070; S9999 S1081 S1070; S9999 S1285-R; P1741 ; P1752
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- S1218 S1070; S9999 S1081 S1070; S9999 S1285-R
- *015* 018; G2108-R D01 D60 F35; P1978-R P0839 D01 D50 D63 F41; H0000; S9999 S1650 S1649; S9999 S1558; S9999 S1581; S9999 S1661; S9999 S1467 S1456; S9999 S1003; S9999 S1070-R; S9999 S1218 S1070; S9999 S1081 S1070; S9999 S1285-R
- *016* 018; G4068 G2131 D01 D10 D11 D22 D23 D31 D46 D50 D76 D86 F43; P1978-R P0839 D01 D50 D63 F41; H0000; P0055; S9999 S1650 S1649; S9999 S1558; S9999 S1581; S9999 S1661; S9999 S1467 S1456; S9999 S1003; S9999 S1070-R; S9999 S1218 S1070; S9999 S1081 S1070; S9999 S1285-R
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- *019* 018; G4068 G2131 D01 D10 D11 D22 D23 D31 D46 D50 D76 D86 F43; P1978-R P0839 D01 D50 D63 F41; H0000; P0055; S9999 S1650 S1649; S9999 S1558; S9999 S1581; S9999 S1661; S9999 S1467 S1456; S9999 S1003; S9999 S1070-R; S9999 S1218 S1070; S9999 S1081 S1070; S9999 S1285-R
- *020* 018; R24090 D01 D10 D11 D50 D63 D85 F41 P0599; S9999 S1650 S1649; S9999 S1558; S9999 S1581; S9999 S1661; S9999 S1467 S1456; S9999 S1003; S9999 S1070-R; S9999 S1218 S1070; S9999 S1081 S1070; S9999 S1285-R
- *021* 018; R17298 G2131 D01 D23 D22 D31 D46 D50 D84 F43; P1978-R P0839 D01 D50 D63 F41; P0055; H0000; S9999 S1650 S1649; S9999 S1558; S9999 S1581; S9999 S1661; S9999 S1467 S1456; S9999 S1003; S9999 S1070-R; S9999 S1218 S1070; S9999 S1081 S1070; S9999 S1285-R
- *022* 018; G2131-R D01 F43; R01295 G2131 D01 D23 D22 D31 D42 D50 D77 D86 F43; P1978-R P0839 D01 D50 D63 F41; P0055; H0000; S9999 S1650 S1649; S9999 S1558; S9999 S1581; S9999 S1661; S9999 S1467 S1456; S9999 S1003; S9999 S1070-R; S9999 S1218 S1070; S9999 S1081 S1070; S9999 S1285-R
- *023* 018; G2062-R D01 D60 F07 F35 G3714-R P0599 F70; P0635-R F70 D01; H0000; H0237-R; S9999 S1650 S1649; S9999 S1558; S9999 S1581; S9999 S1661; S9999 S1467 S1456; S9999 S1003; S9999 S1070-R; S9999 S1218 S1070; S9999 S1081 S1070; S9999 S1285-R
- *024* 018; P1401 P- N- 5A; S9999 S1650 S1649; S9999 S1558; S9999 S1581; S9999 S1661; S9999 S1467 S1456; S9999 S1003; S9999 S1070-R; S9999 S1218 S1070; S9999 S1081 S1070; S9999 S1285-R
- *025* 018; P0782 F39 D01 D65; S9999 S1650 S1649; S9999 S1558; S9999 S1581; S9999 S1661; S9999 S1467 S1456; S9999 S1003; S9999 S1070-R; S9999 S1218 S1070; S9999 S1081 S1070; S9999 S1285-R
- *026* 018; G2142 G2131 D01 F43 G1638 G1592 D22 F34; P0953 P0839 P0964 H0260 F34 F41 D01 D63; S9999 S1650 S1649; S9999 S1558; S9999 S1581; S9999 S1661; S9999 S1467 S1456; S9999 S1003; S9999 S1070-R; S9999 S1218 S1070; S9999 S1081 S1070; S9999 S1285-R
- *027* 018; G0997-R D01 F26; P0975-R P0964 F34 D01 D10; S9999 S1650 S1649; S9999 S1558; S9999 S1581; S9999 S1661; S9999 S1467 S1456; S9999 S1003; S9999 S1070-R; S9999 S1218 S1070; S9999 S1081 S1070; S9999 S1285-R
- *028* 018; G3623-R P0599 D01; S9999 S1650 S1649; S9999 S1558; S9999 S1581; S9999 S1661; S9999 S1467 S1456; S9999 S1003; S9999 S1070-R; S9999

S1218 S1070; S9999 S1081 S1070; S9999 S1285-R
029 018; F53 F54; P1854; S9999 S1650 S1649; S9999 S1558; S9999 S1581;
S9999 S1661; S9999 S1467 S1456; S9999 S1003; S9999 S1070-R; S9999
S1218 S1070; S9999 S1081 S1070; S9999 S1285-R
030 018; ND01; Q9999 Q8048 Q7987; B9999 B4035 B3930 B3838 B3747; N9999
N5721-R; N9999 N6951; K9905; K9825 K9803 K9790
031 018; G2915-R D00 F20 Fe 8B Tr O- 6A D69 I- 7A Ti 4B Pt Pd Ir Ta 5B
D10-R D18-R N- 5A C- 4A G3189; R01521 D00 F20 Zr 4B Tr O- 6A;
R01739 D00 F60 O- 6A S- Ba 2A; R05319 D00 D09 Ag; R03080 D00 D09 Au
1B Tr; R05099 D00 D09 Cu 1B Tr; A999 A748; K9825 K9803 K9790; A999
A771

<02>

001 018; A999 A782; A999 A748

27/26, TI/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

015388594

WPI Acc No: 2003-449539/200342

**Developing control signals from physiological electrical activity by
implanting electrode array in cerebral cortex to translate signals using
algorithm**

27/26, TI/4 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014958477

WPI Acc No: 2003-018991/200301

**Cochlear implant electrode array for treatment of sensorineural hearing loss,
has elongate carrier which supports multiple spaced electrodes in region
between its ends and outer layer releasably connected to carrier**

27/26, TI/6 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014754546

WPI Acc No: 2002-575250/200261

**Implantable electrode array for cochlear implant system, has carrier formed
in spiral configuration, from pair of layers of resiliently flexible material**

27/26, TI/7 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014595928

WPI Acc No: 2002-416632/200244

**Implantable tissue stimulating device e.g. cochlear implant electrode
assembly device, has electrode carrier inserted into implantee's body when
stiffening element and sheath bias carrier into primary configuration**

27/26, TI/8 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014459729

WPI Acc No: 2002-280432/200232

**Sound signal processing method for generating electrical stimuli for
auditory prosthesis, involves presenting stimulus instructions to produce**

neural excitation pattern , approximating spatial temporal pattern

27/26, TI/12 (Item 12 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
013674345
WPI Acc No: 2001-158557/200116
Tissue aperture repair patch for implanting within patient has two inert synthetic mesh material layers extending across and beyond tissue aperture in patient, and I-shaped support spring to urge layers to assume flat configuration

27/26, TI/13 (Item 13 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
011384887
WPI Acc No: 1997-362794/199733
Housing device for implantable defibrillator - has segments which are adapted to pivot at least one hinge axis located between segments, whereby housing is configured to conform to contour of implantation site in pectoral region of patient's chest

27/26, TI/14 (Item 14 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
010958891
WPI Acc No: 1996-455841/199645
Self-positioning cochlear electrode implant assembly - has auxiliary positioning member which upon insertion into cochlea assumes enlarged outward curvature to force side of electrode carrier into close proximity to modiolus and ganglion cells

27/26, TI/15 (Item 15 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
009966564
WPI Acc No: 1994-234277/199428
Neural response measurement system using electrical stimulation and telemetry appts. - uses implanted intra-cochlear and extra-cochlear electrodes for stimulus and measurement, and cascaded gain stages for nulling amplifier prior to detecting potential

27/26, TI/16 (Item 16 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
009711805
WPI Acc No: 1993-405358/199350
Insertion tool for body implantable electrode array for cochlear implant - has body with suction source to releasably engage part of implant comprising intra-cochlear electrode for implantation into body

27/26, TI/17 (Item 17 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
004138134
WPI Acc No: 1984-283674/198446

Cochlear implant system with sound-stimulation encoder - has receiver-stimulator in which delivery of stimulation signal to electrodes is prevented until receipt of command from encoder

27/26, TI/18 (Item 18 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

003328303

WPI Acc No: 1982-H6316E/198226

Speech processor for controlling auditory nerve stimulating electrodes - measures formant amplitude and frequency for addressing EPROM to deliver appropriate stimulation to the electrodes

27/19/1 (Item 1 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

015851091 **Image available**

WPI Acc No: 2004-008918/200401

XRAM Acc No: C04-002257

XRPX Acc No: N04-006351

Hernia repair device used to repair damage body tissue of patient has first layer portion(s) made of absorbable textile material and second layer portion(s) made of non-absorbable textile material

Patent Assignee: ETHICON INC (ETHI)

Inventor: ROUSSEAU R A

Number of Countries: 031 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030078602	A1	20030424	US 20017163	A	20011019	200401 B
EP 1306061	A2	20030502	EP 2002257248	A	20021018	200401

Priority Applications (No Type Date): US 20017163 A 20011019

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 20030078602	A1		8	A61B-017/08	
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EP 1306061	A2 E			A61F-002/00	
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Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

Abstract (Basic): US 20030078602 A1

NOVELTY - Hernia repair device has two layers. The second layer cooperates with first layer to form **implantable patch** for repairing hernia defect. A first layer portion(s) is made from textile material absorbable in patient's body. A second layer portion(s) is made for non-absorbable textile material. When **patch** is **implanted** in patient's body, second layer portion(s) remains permanently implanted, while first layer portion(s) is absorbed.

USE - Used to repair damage body tissue of a patient.

ADVANTAGE - The invention has reduces mass and tension-free. It eliminates the risk of seroma formation and/or recurrence. It eliminates discomfort to the patient.

DESCRIPTION OF DRAWING(S) - The figure shows a perspective view of hernia patch.

Hernia patch (10)

Top and bottom layers (12, 14)

Inert layer (14)

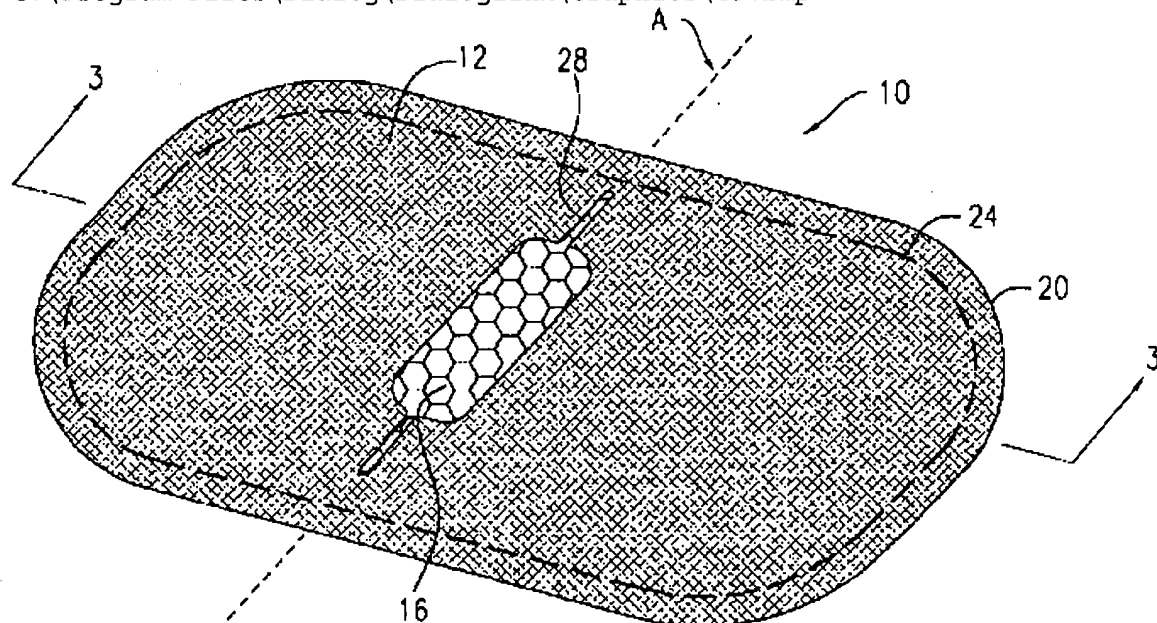
Outer edge (20)

Seam (24)

pp; 8 DwgNo 1/5
Technology Focus:

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred
Components: The device also comprises third layer. The first and third layers are attached to one another to form a pouch for receiving the second layer. A portion(s) of the third layer is made from absorbable textile material. When **patch** is **implanted** in a patient's body, portion(s) of the third layer is absorbed. The first and third layers are made from absorbable textile material. The device also comprises expander for expanding patch into its planar **configuration**. The expander is made from second absorbable material to be absorbed, when the **patch** is **implanted** in the patient's body. The expanding mechanism includes spring located in the pouch. The third layer cooperates with the first and second layer to form the patch. The absorbable textile material is polyglactin. The second absorbable material is poly-dioxanone. The non-absorbable material is polypropylene. The device also comprises receiver in connection with pouch for receiving finger of a person. The receiver includes slit (28) formed in first or third layer. The second layer is contained in the pouch without attaching to first or third layer. A portion(s) of the first and third layers are made of material to be completely absorbed in a patient's body within 15-90 days.

C:\Program Files\Dialog\DialogLink\Graphics\49.bmp



Derwent Class: A96; D22; P31; P32

International Patent Class (Main): A61B-017/08 ; A61F-002/00

File Segment: CPI; EngPI

Manual Codes (CPI/A-N): A12-V02; A12-V03A; D09-C

Polymer Indexing (PS):

<01>

001 018; G1638 G1592 D01 D22 F34 G2142 G2131 F43 D23 D31 D76 D46 D50
D84; H0000; P0055; P1978-R P0839 D01 D50 D63 F41; P0964-R F34 D01;
S9999 S1263 S1070

002 018; G3703 G3623 P0599 D01; S9999 S1263 S1070

003 018; ND01; Q9999 Q8026 Q7987; Q9999 Q8048 Q7987; K9687 K9676; K9518
K9483

004 018; B9999 B3021 B3010

<02>

001 018; R00964 G0044 G0033 G0022 D01 D02 D12 D10 D51 D53 D58 D83;
H0000; S9999 S1263 S1070; P1150 ; P1343

002 018; ND01; Q9999 Q8026 Q7987; Q9999 Q8048 Q7987; K9687 K9676; K9518
K9483

003 018; B9999 B4579 B4568

27/19/3 (Item 3 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

015043164 **Image available**

WPI Acc No: 2003-103680/200309

XRAM Acc No: C03-026338

XRPX Acc No: N03-082695

Implantable electrode and interconnect module in cardiac pacemaker, has silicon encapsulants electrically coupled to LCP substrates to cover portion of electrode conductors, cover interconnect connectors and pads completely

Patent Assignee: FOSTER-MILLER INC (FOSV); INNERSEA TECHNOLOGY (INNE-N);
EDEL D J (EDEL-I); FARRELL B (FARR-I)

Inventor: EDEL D J; FARRELL B

Number of Countries: 101 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200296482	A2	20021205	WO 2002US16942	A	20020530	200309 B
US 20020198582	A1	20021226	US 2001294348	P	20010530	200309
			US 2002158510	A	20020530	
US 6643552	B2	20031104	US 2001294348	P	20010530	200374
			US 2002158510	A	20020530	
EP 1401513	A2	20040331	EP 2002726948	A	20020530	200424
			WO 2002US16942	A	20020530	
AU 2002257344	A1	20021209	AU 2002257344	A	20020530	200452

Priority Applications (No Type Date): US 2001294348 P 20010530; US
2002158510 A 20020530

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200296482 A2 E 28 A61M-000/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA
ZM ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

US 20020198582 A1 A61N-001/05 Provisional application US 2001294348

US 6643552 B2 A61N-001/05 Provisional application US 2001294348

EP 1401513 A2 E A61M-001/00 Based on patent WO 200296482

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI TR

AU 2002257344 A1 A61M-000/00 Based on patent WO 200296482

Abstract (Basic): WO 200296482 A2

NOVELTY - liquid crystal polymer (LCP) substrates include electrode conductors (104A-104C) interconnect conductors (106A-106C) and electrode conductors (110A-110C), interconnection bonding pads (108A-108C) which are mutually connectable. Silicon encapsulants electrically coupled to the LCP substrates, cover a portion of

electrode conductors and cover the interconnect connectors and pads completely.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Electrode array ;
- (2) Microwire electrode array ; and
- (3) Microwire electrode array implanting method.

USE - Implantable electrode and interconnect module in implantable medical device (IMPs) e.g. cardiac pacemaker, cochlear prosthesis device and neuroprostheses.

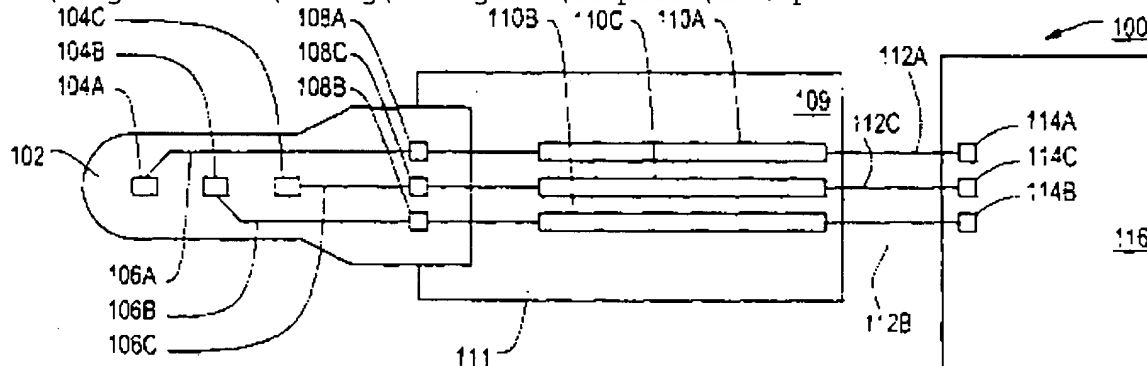
ADVANTAGE - Provides encapsulant for the implantable medical device that has small size and has density matched to the surrounding neural tissue. Since the conductors are encapsulated and chemically bonded to the surface of the LCP substrate, they are protected from the external environment.

DESCRIPTION OF DRAWING(S) - The figure shows the top schematic view of the electrode array module and LCP interconnect module.

Electrode conductors (104A-104C)
Interconnect conductors (106A-106C)
Interconnection bonding pads (108A-108C)
Electrode conductors (110A-110C)

pp; 28 DwgNo 1/9

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Derwent Class: A96; D22; P34; S05; V04

International Patent Class (Main): A61M-000/00; A61M-001/00 ; A61N-001/05

File Segment: CPI; EPI; EngPI

Manual Codes (CPI/A-N): A06-A00E2; A09-A02A; A12-E04; A12-E14; A12-V02;
D09-C01

Manual Codes (EPI/S-X): S05-A02A; S05-A02B; V04-C05; V04-M30M

Polymer Indexing (PS):

<01>

001 018; P1445-R F81 Si 4A; H0282; S9999 S1434

002 018; ND01; N9999 N7170 N7023; Q9999 Q7523; Q9999 Q7374-R Q7330;
Q9999 Q8048 Q7987; Q9999 Q7409 Q7330

27/19/5 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014878074 **Image available**

WPI Acc No: 2002-698780/200275

XRAM Acc No: C02-197968

XRPX Acc No: N02-550970

Cochlear implant electrode array includes intermediate bioresorbable adhesive layer positioned at least partially between elongate carrier and outer layer

Patent Assignee: COCHLEAR LTD (COCH-N); DADD F (DADD-I)

Inventor: DADD F

Number of Countries: 100 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200271984	A1	20020919	WO 2002AU272	A	20020311	200275 B
EP 1377235	A1	20040107	EP 2002703399	A	20020311	200404
			WO 2002AU272	A	20020311	
AU 2002237109	A1	20020924	AU 2002237109	A	20020311	200433
US 20040116995	A1	20040617	WO 2002AU272	A	20020311	200440
			US 2004471713	A	20040210	

Priority Applications (No Type Date): AU 20013646 A 20010312

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200271984 A1 E 32 A61F-002/18

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

EP 1377235 A1 E A61F-002/18 Based on patent WO 200271984

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

AU 2002237109 A1 A61F-002/18 Based on patent WO 200271984

US 20040116995 A1 A61N-001/05

Abstract (Basic): WO 200271984 A1

NOVELTY - A cochlear **implant electrode array** has an intermediate bioresorbable adhesive layer positioned at least partially between an elongate carrier and an outer layer. The adhesive layer has a **configuration** selected for biasing the **array** into the first **configuration** prior to insertion of the **array** into the implantee's body.

DETAILED DESCRIPTION - A cochlear **implant electrode array** comprises an elongate carrier (31) having proximal and distal ends; electrodes (36) supported by the carrier at respective longitudinally spaced locations in a region between the proximal end and the distal end; and an outer layer (33) adhered to the elongate carrier by an intermediate bioresorbable adhesive layer (32) positioned at least partially between the carrier and the outer layer.

The outer layer is formed to normally preferentially adopt the second **configuration**. The bioresorbable adhesive layer has a **configuration** selected for biasing the **array** into the first **configuration** prior to insertion of the **array** into the implantee's body.

INDEPENDENT CLAIMS are also included for: (i) a method of forming an **implantable electrode array**; and (ii) a method of inserting an **implantable electrode array** in a cochlea of an implantee comprising performing a cochleostomy, inserting the electrode **array** of the claim through the cochleostomy, and closing the cochleostomy.

USE - For inserting into cochlea of an implantee (claimed).

ADVANTAGE - The invention provides an electrode **array** that can preferably be inserted more deeply into the cochlea while also preferably reducing the degree of trauma to the sensitive structures within the cochlea.

DESCRIPTION OF DRAWING(S) - The figure is a simplified longitudinal sectional view of a cochlear electrode array of the invention in its pre-insertion state.

Carrier (31)

Adhesive layer (32)

Outer layer (33)

Electrodes (36)

pp; 32 DwgNo 2/7

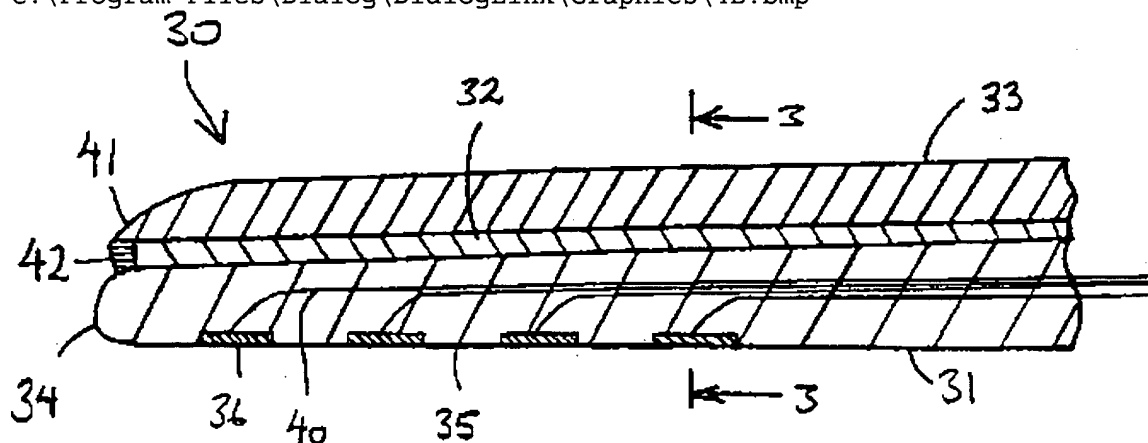
Technology Focus:

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Condition: Following implantation, the carrier subtends at least 360 degrees, (preferably 450 degrees).

POLYMERS - Preferred Material: The carrier and the outer layer are each formed from a biocompatible elastomeric material. The adhesive layer is made of bioresorbable material from polyacrylic acid, polyvinyl alcohol, polylactic acid, or polyglycolic acid.

Preferred Method: The adhesive layer bonding to the outer layer and carrier gradually dissolves, thereby allowing the outer layer to begin to move towards its second configuration and so pushing the resiliently flexible carrier closer to the wall of the cochlea.

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Derwent Class: A32; A96; D22; P32; P34; S05; W04

International Patent Class (Main): A61F-002/18 ; A61N-001/05

International Patent Class (Additional): A61F-011/04; A61N-001/36;
H04R-025/00

File Segment: CPI; EPI; EngPI

Manual Codes (CPI/A-N): A11-B01; A11-C01C; A12-V02; D09-C01

Manual Codes (EPI/S-X): S05-F01; W04-Y01B; W04-Y05C

Polymer Indexing (PS):

<01>

001 018; R00446 G0282 G0271 G0260 G0022 D01 D12 D10 D26 D51 D53 D58 D60
D83 F36 F35; H0000; P0088 ; P0099

002 018; P1707 P1694 D01

003 018; R00448 G2108 D01 D11 D10 D50 D60 D82 F27 F26 F36 F35; R00009
G2108 D01 D11 D10 D50 D60 D83 F27 F26 F36 F35; H0000; P1978-R P0839
D01 D50 D63 F41

004 018; ND01; ND07; N9999 N5721-R; Q9999 Q8048 Q7987; K9416; K9574
K9483; K9676-R; K9698 K9676

005 018; Q9999 Q6644-R; B9999 B3021 B3010

<02>

001 018; H0124-R; S9999 S1434

002 018; ND01; ND07; N9999 N5721-R; Q9999 Q8048 Q7987; K9416; K9574
K9483; K9676-R; K9698 K9676
003 018; B9999 B4488 B4466; N9999 N6440-R

27/19/9 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014029836 **Image available**

WPI Acc No: 2001-514050/200156

XPX Acc No: N01-380839

**Improved cochlear implant package shaped to be received in more desirable
location within skull of patient using flexible coupling**

Patent Assignee: UNIV MELBOURNE (UYME)

Inventor: CLARK G M; O'LEARY S J; PYMAN B C

Number of Countries: 094 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200110369	A1	20010215	WO 2000AU936	A	20000807	200156 B
AU 200062542	A	20010305	AU 200062542	A	20000807	200156
EP 1202693	A1	20020508	EP 2000949005	A	20000807	200238
			WO 2000AU936	A	20000807	
JP 2003506149	W	20030218	WO 2000AU936	A	20000807	200315
			JP 2001514896	A	20000807	

Priority Applications (No Type Date): AU 992071 A 19990806

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200110369 A1 E 10 A61F-011/04

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP
KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT
RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

AU 200062542 A A61F-011/04 Based on patent WO 200110369

EP 1202693 A1 E A61F-011/04 Based on patent WO 200110369

Designated States (Regional): AL DE FR GB LT LV MK RO SI

JP 2003506149 W 12 A61F-002/18 Based on patent WO 200110369

Abstract (Basic): WO 200110369 A1

NOVELTY - A housing (2) for receiving/stimulation electronics is in a narrow elongate shape and is connected by leads (4,5) in flexible arms (6,7) to the transmit/receive coil (3) enclosed in a protective casing (8) which is received in a drilled bed in the mastoid bone (B3) behind the ear, while suitably shaped beds receive the flexible arms. A further lead (9) extends from the housing into the ear cavity (C1) through a window (W) and terminates in an **electrode array implanted** in the cochlea.

USE - Positioning cochlear implant in a more desirable location in the mastoid bone.

DESCRIPTION OF DRAWING(S) - The drawing is a schematic cross-section illustrating positioning of the protective casing and housing relative to the ear canal.

Housing (2)

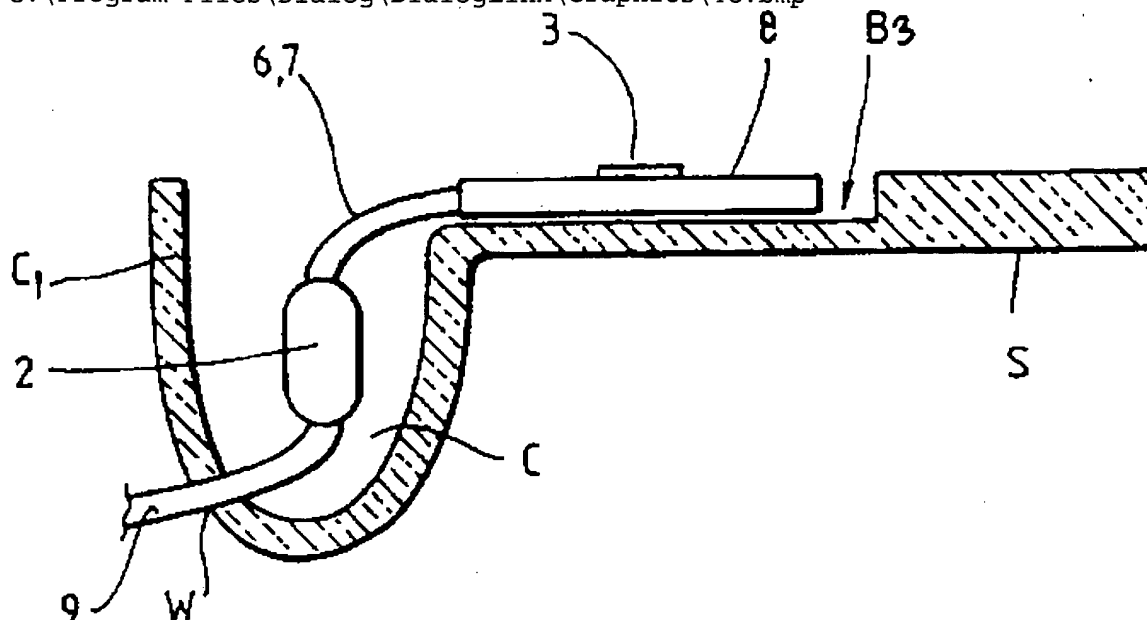
Transmit/receive coil (3)

Protective casing (8)

Flexible arms (6,7)

pp; 10 DwgNo 2/2

C:\Program Files\Dialog\DialogLink\Graphics\4C.bmp



Derwent Class: P32; S05; W04
 International Patent Class (Main): A61F-002/18 ; A61F-011/04
 International Patent Class (Additional): A61F-002/18
 File Segment: EPI; EngPI
 Manual Codes (EPI/S-X): S05-F01; W04-Y01; W04-Y05C

27/19/10 (Item 10 from file: 350)
 DIALOG(R)File 350:Derwent WPIX
 (c) 2004 Thomson Derwent. All rts. reserv.
 013965776 **Image available**
 WPI Acc No: 2001-449990/200148
 Related WPI Acc No: 1994-182478; 1998-041179; 1998-361493; 2001-464181
 XRAM Acc No: C01-135806
 XRPX Acc No: N01-333042
Implantable prosthesis for occluding tissue and muscle defective openings such as hernia, comprises flexible patch comprising implantable fabric and implantable fabric forming circumference of fabric body portion
 Patent Assignee: BARD INC C R (BRDC)
 Inventor: DICESARE P C; MULHAUSER P J
 Number of Countries: 001 Number of Patents: 001
 Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6214020	B1	20010410	US 92886689	A	19920520	200148 B
			US 94250657	A	19940527	
			US 99390793	A	19990907	

 Priority Applications (No Type Date): US 92886689 A 19920520; US 94250657 A 19940527; US 99390793 A 19990907
 Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6214020	B1	18	A61B-017/00	Cont of application US 92886689 Cont of application US 94250657

 Abstract (Basic): US 6214020 B1
 NOVELTY - Implantable prosthesis (10) comprises a flexible patch comprising implantable ring (IR) (14) attached to implantable fabric

(IF) (12). IF has interstices allowing tissue ingrowth; body portion covering defective opening; and outlying portion(s) extending beyond IR and from body portion to overlies muscle or tissue adjacent to defective opening. IR forms the circumference of body portion.

DETAILED DESCRIPTION - The pliable IF having interstices allowing tissue ingrowth, secures the fabric to adjacent tissue after implantation.

USE - Useful for occluding tissue or muscle defective opening, laparoscopic herniorrhaphy, repairing direct and indirect inguinal hernias, reducing incidence of postoperative adhesions, and repairing and reinforcing ruptured or defective muscular wall.

ADVANTAGE - The ring in the implant efficiently maintains prosthesis in predetermined shape, with improved **mesh implant** handle-ability when complicated surgical tools are used to manipulate the implant. The ring provides the implant with sufficient hoop strength to prevent mesh fabric from collapsing into defective opening. The flat implant is sufficiently pliable to allow surgeon to roll the implant into narrow cylinder, suitable for loading into trocar cannula lumen. The shape and size of prosthesis respective to fabric and ring can be used in required form in surgical application by varying them apparently. The pliable prosthesis rollable into a **configuration**, is small enough to be inserted through laparoscopic cannula, and yet is sufficiently resilient to revert to normal expanded and flat **configuration** to cover herniated site evenly. The fabric with body portion provides stiffer implant, and also increases dimensional stability of **implant**. The **mesh implants** provides effective means for repairing direct or indirect inguinal hernia by occluding defective opening without filling entire void. The delivery tool provides simple and quick system for loading and delivering the implant to abdominal cavity at surgical site.

DESCRIPTION OF DRAWING(S) - The figure shows the implantable prosthesis.

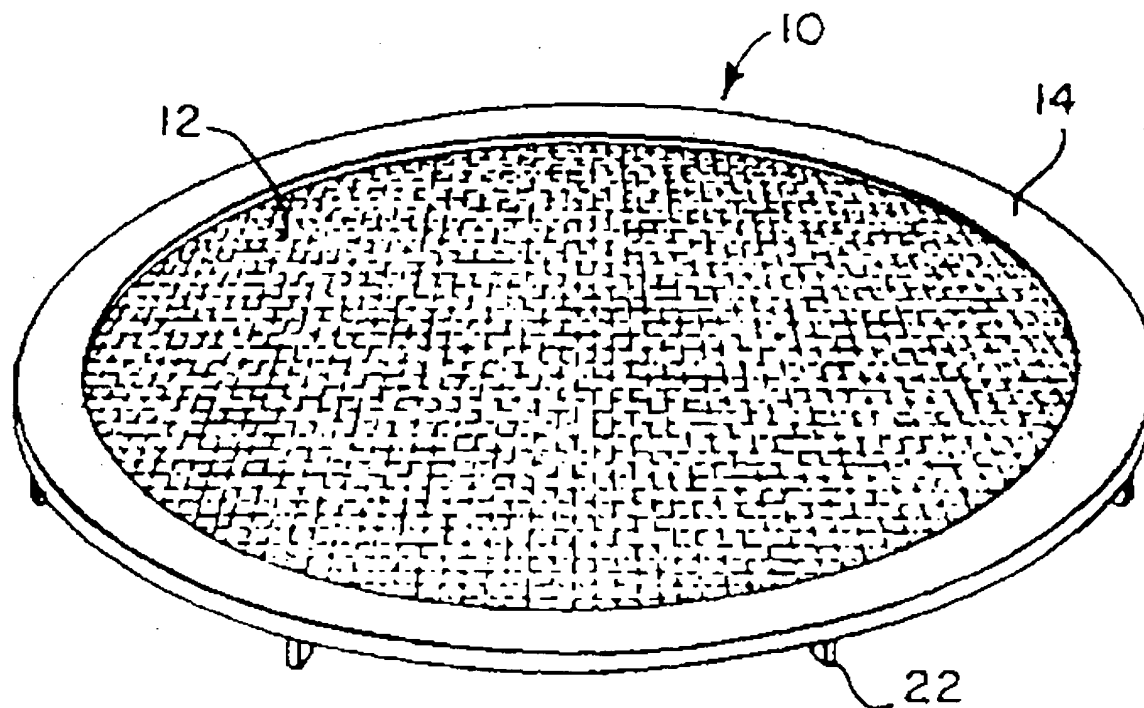
Implantable prosthesis (10)

Implantable fabric (12)

Implantable material ring (14)

pp; 18 DwgNo 2a/7

C:\Program Files\Dialog\DialogLink\Graphics\4D.bmp



Derwent Class: A96; D22; P31
 International Patent Class (Main): A61B-017/00
 File Segment: CPI; EngPI
 Manual Codes (CPI/A-N): A12-V02; D09-C01
 Polymer Indexing (PS):

<01>

001 018; P0000; S9999 S1161-R S1070

002 018; R00964 G0044 G0033 G0022 D01 D02 D12 D10 D51 D53 D58 D83;
 H0000; P1150 ; P1343

003 018; ND01; Q9999 Q8048 Q7987; B9999 B4035 B3930 B3838 B3747; B9999
 B4091-R B3838 B3747; B9999 B4024 B3963 B3930 B3838 B3747; B9999
 B3758-R B3747; B9999 B4079 B3930 B3838 B3747; K9416

27/19/11 (Item 11 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013717522 **Image available**

WPI Acc No: 2001-201746/200120

Related WPI Acc No: 1994-316579; 1997-289009; 1999-370122; 1999-590300;
 2000-126131

XRPX Acc No: N01-143837

Location and identification system for use with multiple electrodes used
 in the diagnosis and treatment of cardiac conditions using an
 identification code to identify the structure providing improved mapping

Patent Assignee: EP TECHNOLOGIES INC (EPTE-N)

Inventor: PANESCU D; SWANSON D K; WHAYNE J G

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6165169	A	20001226	US 94206414	A	19940304	200120 B
			US 95557790	A	19951113	
			US 96738814	A	19961028	
			US 99292638	A	19990415	

Priority Applications (No Type Date): US 96738814 A 19961028; US 94206414 A 19940304; US 95557790 A 19951113; US 99292638 A 19990415

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6165169	A	34	A61B-017/00		CIP of application US 94206414
					CIP of application US 95557790
					Cont of application US 96738814
					CIP of patent US 5904680

Abstract (Basic): US 6165169 A

NOVELTY - The electrode **array** has a particular property for affecting tissue contact. The property is uniquely identified by a code included in the **array**. Various properties can be identified by the code including the purpose of the electrode, the number of electrodes, and the distribution **pattern** of the electrodes.

DETAILED DESCRIPTION - The electrode **array** includes a coded component (170) which is coupled to an external interpreter (178) when the probe (10) is plugged into a control unit (172) for use. The interpreter inputs a code contained by the component and compares it to a master table (180) stored in a memory.

USE - Identification of **implanted electrode arrays**.

ADVANTAGE - Provides reliable identification of the functional attributes of multiple electrode **arrays**.

DESCRIPTION OF DRAWING(S) - The drawing shows a diagrammatic view of a multiple electrode **array** and the identification system.

Probe (10)

Identification component ((170)

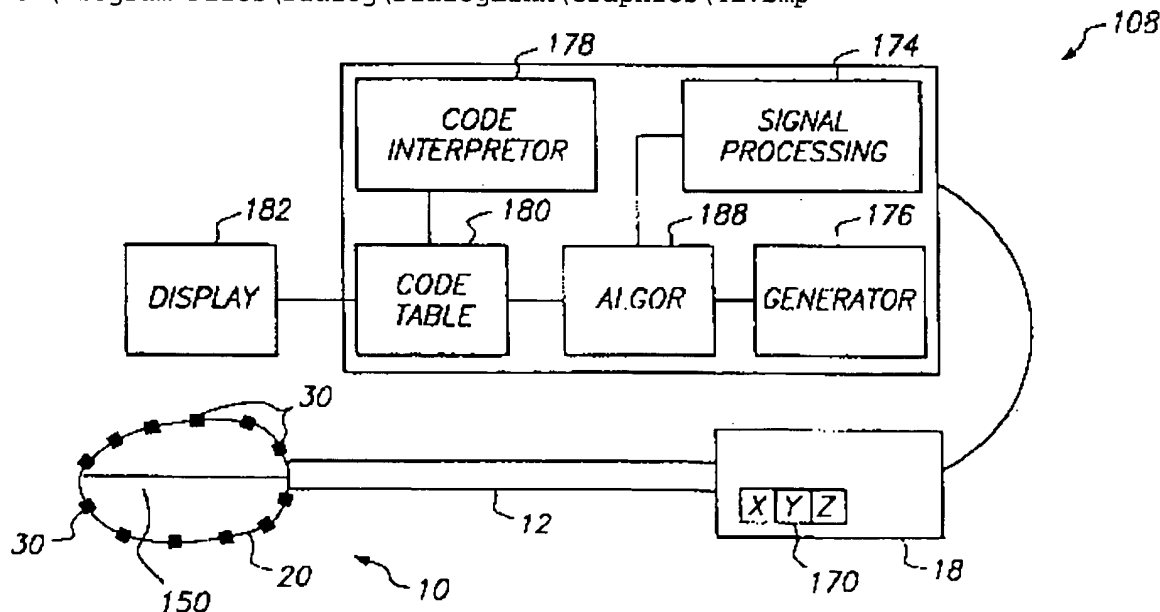
Control unit (172)

External interpreter (178)

Master table (180)

pp; 34 DwgNo 39/51

C:\Program Files\Dialog\DialogLink\Graphics\4E.bmp



Derwent Class: P31; S05; W05

International Patent Class (Main): A61B-017/00

File Segment: EPI; EngPI

Manual Codes (EPI/S-X): S05-A02A; W05-D02; W05-D03E

File 348:EUROPEAN PATENTS 1978-2004/Sep W01

File 349:PCT FULLTEXT 1979-2002/UB=20040909,UT=20040902

Set	Items	Description
S1	3851	IMPLANT?(1N) (DEFIBRILLATOR? OR CARDIOVERTER OR ELECTRODE? ? OR MESH OR PATCH OR PATCHES) OR (EPICARDIAL OR VENTRICULAR OR SUBCUTANEOUS OR DEFIBRILLAT?) (1W) (PATCH OR PATCHES OR MESH)
S2	780376	COUPLED OR BONDED OR ATTACHED OR AFFIXED
S3	55630	MARKING? ? OR INDICIA
S4	312393	INK OR THREAD? ? OR WIRE OR WIRES OR RADIOPAQUE OR (MAGNET-IC() RESONANCE() IMAG??? OR MRI) (1N) SENSITIVE
S5	20768	(PARALLEL OR RADIAL OR (HORIZONTAL(2N) VERTICAL)) (2N) (LINES OR LINES) OR (STARBURST OR STRIPE? ? OR CONCENTRIC() CIRCLE? ? OR GRIDLIKE) (1N) (PATTERN? ? OR DESIGN? ? OR CONFIGUR?)
S6	42792	IC=(A61M-001? OR A61F-002? OR A61B-017? OR A61B-019?)
S7	266	S1 AND S6
S8	3	S1(5N) S3
S9	82	S1(5N) S4
S10	3	S1(5N) S5
S11	5	S8 OR S10
S12	1	S8 AND S10 [a duplicate]
S13	4	S11 NOT S12
S14	582118	PATTERN? ? OR DESIGN? ?
S15	613208	CONFIGUR? OR ARRAY?
S16	10	S9(15N) S14:S15
S17	10	S16 NOT S11
S18	0	S17 AND S6
S19	0	S9(S) S5
S20	5	S9 AND S5
S21	4	S20 NOT (S11 OR S16)
S22	3	S1(10N) S5
S23	0	S22 NOT (S11 OR S16 OR S20)

13/3,AB,K/1 (Item 1 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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01007624

AREAL IMPLANTIMPLANT AREOLAIRE

Patent Applicant/Assignee:

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DE (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

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Legal Representative:

BOTH Georg (et al) (agent), Uexkull & Stolberg, Beselerstr. 4, 22607
Hamburg, DE,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200337215 A2-A3 20030508 (WO 0337215)

Application: WO 2002EP11860 20021023 (PCT/WO EP0211860)

Priority Application: DE 10153334 20011029

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 5619

English Abstract

An areal **implant** has a mesh-like basic structure (1, 2) and a **marking** (6) in the central region. A marking line (3) runs through this central **marking** (6).

Fulltext Availability: Detailed Description

Detailed Description

... way to the version according to Example 1,

i.e. again with a "Vypro" III, **implant mesh** customary in the trade with **marking threads** additionally incorporated during production.

The only difference from the version according to Example 1...additional thread, namely a fourfold twist of Vicryl (violet; Ethicon), was incorporated as middle-running **marking** line onto a **mesh** -like **implant** ("Vypro" III', Ethicon) customary in the trade. For this, the thread was...

13/3,AB,K/2 (Item 2 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00959859

AREAL IMPLANT

IMPLANT AREOLAIRE

Patent Applicant/Assignee:

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DE (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

HELLHAMMER Brigitte, Habichtstrasse 15, 22451 Quickborn, DE, DE
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(Nationality), (Designated only for: US)

PRIEWE Jorg, Sophienblatt 71a, 24114 Kiel, DE, DE (Residence), DE
(Nationality), (Designated only for: US)

SCHULDT-HEMPE Barbara, Rosenstrasse 23, 24576 Bad Bramstedt, DE, DE
(Residence), DE (Nationality), (Designated only for: US)

WALTHER Christoph, Dorfstrasse 35, 24568 Kattendorf, DE, DE (Residence),
DE (Nationality), (Designated only for: US)

Legal Representative:

BOTH Georg (et al) (agent), Uexkull & Stolberg, Beselerstr. 4, 22607
Hamburg, DE,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200291950 A1 20021121 (WO 0291950)

Application: WO 2002EP3460 20020327 (PCT/WO EP0203460)

Priority Application: DE 10123934 20010517

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 3958

English Abstract

An areal **implant** comprises a flexible, porous basic structure which is non-resorbable or partly resorbable and which contains non-resorbable **coloured elements arranged in a stripe-like pattern**. Furthermore, resorbable coloured elements arranged in a stripe-like pattern are provided.

Fulltext Availability: Detailed Description

Detailed Description

... uncoloured twisted yarns or monofilaments are required. Depending on the desired colour intensity of the **stripe-like patterns** on the **implant mesh**, multi-stage twisted yarns or monofilaments are selected. In the examples, the material combinations from...

13/3,AB,K/3 (Item 3 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00306002

ELECTROENCEPHALOGRAPHIC APPARATUS FOR MARKING ELECTRODE LOCATIONS

**DISPOSITIF DE MARQUAGE D'EMPLACEMENTS D'ELECTRODES POUR
ELECTROENCEPHALOGRAPHIE**

Patent Applicant/Assignee:

OOMMEN Kalarickal J,

Inventor(s):

OOMMEN Kalarickal J,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9524153 A1 19950914

Application: WO 94US2479 19940309 (PCT/WO US9402479)

Priority Application: WO 94US2479 19940309

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AT AU BB BG BR BY CA CH CZ DE DK ES FI GB HU JP KP KR KZ LK LU MG MN MW
NL NO NZ PL PT RO RU SD SE SK UA VN AT BE CH DE DK ES FR GB GR IE IT LU
MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 4240

English Abstract

A templet cap (10) that comprises a plurality of elastic straps (12) connected to form a lattice containing all the electrode-positioning locations required to perform an encephalogram according to the International 10/20 System. Each precise electrode-location point along

each strap of the cap features a grommet (40) with an eyelet (42) available for marking the scalp of a patient. The cap is positioned with reference to the nasion (N) and inion (I) of the patient in preparation for an EEG. After all points have been identified and marked, the cap is removed and EEG electrodes are attached to the scalp according to normal procedure.

Fulltext Availability: Detailed Description
Detailed Description

... use in combination with the cap, Rather, it provides a multiplicity of guide holes for marking the exact locations for electrode implanting, after 15 which it is removed from the patientfs scalp.

Referring to the drawings, wherein...

17/6/3 (Item 3 from file: 348)
00482153

Porous electrode with enhanced reactive surface.

17/6/5 (Item 5 from file: 348)
00243948

Cochlear implant system with psychological testing or programming with mapped patient responses provided to encoder.

17/6/6 (Item 1 from file: 349)
01020065 **Image available**
CONTROL OF SHAPE OF AN IMPLANTABLE ELECTRODE ARRAY

17/6/9 (Item 4 from file: 349)
00504530 **Image available**
AUDIO SIGNAL PROCESSORS

17/3,AB,K/1 (Item 1 from file: 348)
DIALOG(R) File 348:EUROPEAN PATENTS
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00556065

IMPLANTABLE ELECTRODE FOR LOCATION WITHIN A BLOOD VESSEL
IN EINEM BLUTGEFASS IMPLANTIERBARE ELEKTRODE
ELECTRODE IMPLANTABLE DEVANT ETRE PLACEE DANS UN VAISSEAU SANGUIN
PATENT ASSIGNEE:

MEDTRONIC, INC., (209272), 7000 Central Avenue N.E., Minneapolis,
Minnesota 55432-3576, (US), (applicant designated states:
DE;FR;GB;IT;NL;SE)

INVENTOR:

MEHRA, Rahul, 901 Pine Street, Stillwater, MN 55082, (US)

LEGAL REPRESENTATIVE:

Strehl, Peter, Dipl.-Ing. (11662), Patentanwalte Strehl Schubel-Hopf
Groening u. Partner Postfach 22 14 55, 80504 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 566652 A1 931027 (Basic)
EP 566652 B1 940629
WO 9211898 920723

APPLICATION (CC, No, Date): EP 92903654 911113; WO 91US8474

PRIORITY (CC, No, Date): US 638247 910107

DESIGNATED STATES: DE; FR; GB; IT; NL; SE

INTERNATIONAL PATENT CLASS: A61N-001/05

NOTE: No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	9711W3	211
CLAIMS B	(German)	9711W3	204
CLAIMS B	(French)	9711W3	239
SPEC B	(English)	9711W3	2061

Total word count - document A 0

Total word count - document B 2715

Total word count - documents A + B 2715

...SPECIFICATION an external diameter less than the internal diameter of the blood vessel 22 in which it is intended to be implanted. The electrode 14 is coupled to an elongated insulated conductor 16. Electrode 14 is mounted around the expandable portion...

17/3,AB,K/4 (Item 4 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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00309701

Implantable defibrillation electrodes.

Implantierbare Entflimmerungselektroden.

Electrodes implantables de defibrillation.

PATENT ASSIGNEE:

INTERMEDICS, INC., (578181), 4000 Technology Drive P.O. Box 4000,
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CH;DE;FR;GB;IT;LI;NL;SE)

INVENTOR:

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Baker, Ross G., Jr., 3626 Lake Street, Houston Texas 77098, (US)

Calfee, Richard V., 2040 Goldsmith, Houston Texas 77030, (US)

LEGAL REPRESENTATIVE:

Charlton, Peter John et al (53121), Elkington and Fife Prospect House 8
Pembroke Road, Sevenoaks, Kent TN13 1XR, (GB)

PATENT (CC, No, Kind, Date): EP 280564 A2 880831 (Basic)

EP 280564 A3 890201

EP 280564 B1 930616

APPLICATION (CC, No, Date): EP 88301663 880226;

PRIORITY (CC, No, Date): US 19670 870227

DESIGNATED STATES: CH; DE; FR; GB; IT; LI; NL; SE

INTERNATIONAL PATENT CLASS: A61N-001/05;

ABSTRACT EP 280564 A2

A pair of defibrillation patch electrodes (12,15) is adapted for close fitting placement over the ventricles of the heart, either epicardially or pericardially. One of the patches is contoured to fit over the right ventricle, and the other is contoured to fit over the left ventricle in spaced relationship to the first patch to form a substantially uniform gap (40) between confronting borders of the two. The gap (40) is sufficiently wide to avoid the shunting of current between edges of the patches upon delivery of defibrillation shocks, as well as to accommodate the ventricular septum and the major coronary arteries therein. The size and shape of the patches is such that they encompass most of the ventricular myocardium within and between their borders, to establish a nearly uniform potential gradient field throughout the entire ventricular mass when a defibrillation shock is delivered to the electrodes. Flat versions (50; 60, 62) of the two electrodes provide ease of manufacture.

ABSTRACT WORD COUNT: 163

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	2098
CLAIMS B	(German)	EPBBF1	1192
CLAIMS B	(French)	EPBBF1	1397
SPEC B	(English)	EPBBF1	4884
Total word count - document A			0
Total word count - document B			9571
Total word count - documents A + B			9571

...SPECIFICATION mesh grade 2 having 50 by 50 lines per inch (available, for example, from Unique **Wire** of Hillside, N.J.), **with a conformal** (flexible) biocompatible insulative backing layer 20, such **as** 5.08 x 10(sup -)(sup 4)m (0.020 inch) thick silicone rubber sheet...

17/3,AB,K/7 (Item 2 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00823354

COCHLEAR IMPLANT SYSTEM PARTIALLY INSERTABLE IN THE EXTERNAL EAR
SYSTEME D'IMPLANT COCHLEAIRE PARTIELLEMENT INSERE DANS L'OREILLE EXTERNE

Patent Applicant/Assignee:

MED-EL ELEKTROMEDIZINISCHE GERATE GMBH, Furstenweg 77a, A-6020 Innsbruck,
AT, AT (Residence), AT (Nationality)

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HOCHMAIR Erwin S, Stadelbach #5, A-6094 Axams, AT,
HOCHMAIR Ingeborg J, Stadelbach #5, A-6094 Axams, AT,

Legal Representative:

FROUD Clive (agent), Elkington and Fife, Prospect House, 8 Pembroke Road,
Sevenoaks, Kent TN13 1XR, GB,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200156521 A1 20010809 (WO 0156521)
Application: WO 2001IB455 20010131 (PCT/WO IB0100455)
Priority Application: US 2000179176 20000131

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AU BR CA JP

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

Publication Language: English

Filing Language: English

Fulltext Word Count: 3729

English Abstract

A cochlear implant system has a signal processor (50) that fits in the ear canal of a user. The signal processor (50) processes an acoustic signal present in the ear of the user to produce a representative radio signal. A power transmitter transmits an electrical power signal through the skin of the user. A cochlear implant receives the radio signal and the electrical power signal and produces for the auditory nerve of the user an electrical stimulation signal representative of the acoustic signal.

Fulltext Availability: Detailed Description

Detailed Description

... performs additional signal processing such as error correction, pulse formation, etc., and produces a stimulation **pattern** (based on the

extracted audio information) that is sent through connected **wires** 44 to an **implanted electrode** carrier 46. Typically, this electrode carrier 46 includes multiple electrodes on its surface that provide...

17/3,AB,K/8 (Item 3 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00734186
COCHLEAR ELECTRODE ARRAY WITH ELECTRODE CONTACTS ON MEDIAL SIDE
RESEAU D'ELECTRODES COCHLEAIRES AVEC CONTACTS D'ELECTRODES SUR LE COTE
MEDIAN
Patent Applicant/Assignee:
ADVANCED BIONICS CORPORATION, 12740 San Fernando Road, Sylmar, CA 91342,
US, US (Residence), US (Nationality)
Inventor(s):
KUZMA Janusz A, 10886 East Crestline Circle, Englewood, CO 80111, US,
Legal Representative:
GOLD Bryant R (agent), Advanced Bionics Corporation, 12740 San Fernando
Road, Sylmar, CA 91342, US,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200047272 A1 20000817 (WO 0047272)
Application: WO 99US22591 19990928 (PCT/WO US9922591)
Priority Application: US 99247734 19990209
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
AU CA JP
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
Publication Language: English
Filing Language: English
Fulltext Word Count: 10456
English Abstract

An **implantable electrode array** (30), adapted for insertion into a human cochlea, provides improved stability of electrode contact direction. In-line electrodes (32) are spaced-apart along one side of a flexible carrier. The structure of the electrode array facilitates bending of the array with the electrode contacts on the inside of the bend, yet deters flexing or twisting of the array in other directions. The electrode contacts preferably are each made from two strips of metal (210, 220), arranged in a "T" shape (top view). During assembly, all of the "T" strips are held in position on an iron sheet (100). Two wire bundles (202, 203) are formed that pass along each side of each "T". The leg of each "T" is folded over to pinch at least one of the wires from one of the wire bundles therebetween. This pinched wire is then resistance welded to the strip. The sides of the "T" are then folded up. In one embodiment, the sides touch or nearly touch to form a "Delta" shape (FIG. 5A). In another embodiment, the sides are directed upwards to form a "U" shape (FIG. 6B). The wire bundles going to more distal electrodes pass through the "Delta" or "U" and are engaged thereby. A flexible carrier (36), made from, e.g., silicone rubber, is molded over and around the wire bundles and folded electrode T's, preferably in a slightly curved shape. The iron sheet is chemically etched away, leaving an array of spaced-apart electrode contact areas along one edge of the flexible carrier, each of which is electrically attached to at least one wire which passes through the carrier. In one embodiment, soft shoulders (70) or bumps or ridges are formed in between each electrode contact. A soft

tip (37), which in some embodiments may be enlarged into a ball (37'), and which is made from a material that is softer than the flexible carrier, is formed at a distal end of the flexible carrier (36).

Fulltext Availability: Claims

Claim

... and wherein at least one wire connected to the first electrode comes from the second wire bundle.

9 The **implantable electrode array** of Claim I further including a hump formed on the medial side of the **array** in the space between the flat rectangular contact surface area of each electrode...

17/3,AB,K/10 (Item 5 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00329945

LOW-COST, FOUR-CHANNEL COCHLEAR IMPLANT

IMPLANT COCHLEAIRE A QUATRE CANAUX, PEU COUTEUX

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KP KR KZ LK LR LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI
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English Abstract

A low-cost, multichannel cochlear stimulation system (10) utilizes a passive, non-hermetically sealed, **implantable receiver/electrode array** (12) and an external wearable processor (14). At one end (30) of the receiver/electrode array, positioned subcutaneously near the surface of skin (16) above the ear, multiple receiving coils (28) are arranged in an **appropriate pattern**. At the other end (34), which is adapted for insertion into the spiral-shaped cochlea, electrodes (34) are spaced apart along the spiral. Each electrode is electrically connected to a respective receiving coil in a monopolar or bipolar fashion. The wearable processor (14) senses audible sounds, converts the sensed sounds to corresponding electrical signals, and divides the electrical signals into multiple frequency bands or channels. A continuous interleaved sampling (CIS) speech processing strategy applies the processed signals of each channel to each of multiple external coils (54), one coil for each channel, as a series of narrow, rapid, biphasic current pulses. The external coils are aligned, using a suitable headpiece (22), with corresponding coils (28) of the receiver/electrode array. The narrow CIS pulses contain inductively couple the biphasic current pulses directly to

the aligned implanted coils without having to modulate a high frequency carrier signal with the biphasic pulses. The induced voltage at the implanted coils causes the biphasic current pulse to appear at a respective electrode of the implanted electrode array, thereby providing electrical stimulation at the cochlea as a function of sensed audible sounds.

Fulltext Availability: Detailed Description
Detailed Description

... for the coils is relatively inexpensive, thereby helping to keep the overall cost of the **implanted receiver/ electrode array** 12 low. Gold **wire** (or a gold-alloy wire) may also be used within the **array** 12, as gold is usually less expensive than platinum, Any metal that provides the desired...

21/6/2 (Item 1 from file: 349)
00487499 **Image available**
EMG SENSOR AND MULTICHANNEL URETHRAL EMG-SYSTEM COMPRISING SAID SENSOR

21/6/3 (Item 2 from file: 349)
00175747 **Image available**
REDUCTION OF THE DIAMETER OF A MALE CONNECTOR PART FOR A PACEMAKER

21/13,AB,K/4 (Item 3 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00175008
PATCH ELECTRODES FOR USE WITH DEFIBRILLATORS
ELECTRODES A PIECES DE CONTACT UTILISEES AVEC DES DEFIBRILLATEURS
Patent Applicant/Assignee:
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Inventor(s):
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MARLOW Leonard George Jr,
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AT AU BE CH DE DK ES FR GB IT JP LU NL SE
Publication Language: English
Fulltext Word Count: 4135
English Abstract

A **patch electrode** (10, 11) for use with **defibrillators** (25) is provided. The patch electrode (10, 11) comprises a soft, flexible patch (12) of polymeric material and **bonded to it, a smaller patch** (14) of polymeric material that has been metal-plated. A lead wire (21, 23) is attached to the patch (10, 11) by a polymeric boot (18). A defibrillator system is also provided wherein two electrodes (10, 11) and lead wires (21, 23) are attached to a generator (25) typically used for cardioventing and defibrillization. The invention is particularly useful for cardiac muscle stimulation but can also be used for muscle stimulation.

Fulltext Availability: Detailed Description
Detailed Description

... of preferably 1,3-1,5 g/cc to provide an

impermeable barrier.
The lead **wire** 23 is attached to the **defibrillator patch** with the use of a commercially available low resistance conductive epoxy 16 or may be...
...available from W.R, Grace in Woburn, Massachusetts,
Further covering a portion 18 of the **defibrillator patch** 10 and lead **wire** 21 is a silicone boot which reinforces the connection made between the patch and wire...direction of expansion, In order to measure the average fibril length of expanded PTFE, two **parallel lines** are drawn across a photomicrograph of about 100 times magnification of the surface of the...